

Bobo, Grégoire



Grégoire Bobo attended ENSAE ParisTech where he studied statistics and economics. He also holds a master in applied mathematics from University Paris-Dauphine. During his graduate studies, Grégoire developed a solid foundation in mathematics, stochastic calculus, and numerical methods, but also specialized in macroeconomic forecasting, monetary economics, and economic policies at ENSAE. Working as a quantitative analyst for BNP London, Grégoire developed a system based on machine learning methods to automatically detect and classify errors occurring in the risk calculation solutions using Python and SQL. While working at La Caisse des Dépôts et des Consignations, France's largest public asset management company, Grégoire worked on text-recognition algorithms. He developed a solution to extract financial indicators from reports and emails and to operate sentiment analysis on a message. Grégoire also had the chance to participate in daily meetings discussing placement strategy and macroeconomic forecasting. A longtime subscriber of The Economist, Grégoire truly enjoys reading about politics and economics. He also appreciates learning about modern history. In his spare time, Grégoire plays the piano and enjoys climbing, paragliding, and hiking.

Boilot, Adrien



Adrien Boilot obtained his master in financial markets from EDHEC business school in Nice where he studied financial derivatives, fixed income as well as Python and machine learning. Adrien has completed a master in applied mathematics at Ecole Centrale Paris where he studied stochastic calculus and equity derivatives pricing. While in his final year at EDHEC, Adrien's thesis work focused on the compounding effect retail investors are exposed to when trading leveraged ETFs. Adrien worked as part of the sales team for equity derivative products at Societe Generale in Paris, where he was a member of the listed products desk responsible for issuing a wide variety of equity and derivative products to institutional and retail clients. Adrien also worked in London in the debt capital markets division of Japanese bank MUFG Mitsubishi. More specifically, he interned on the origination team for large capitalization corporates. During his free time, Adrien enjoys tennis and skiing.

Chen, Ying



Ying Chen graduated from China Foreign Affairs University, where she received a bachelor degree in finance. While still at the university, Ying completed a six-month internship as a research analyst developing quantitative trading strategies at Quantum Financial Service. Having established a fascination with the finance industry, Ying then accepted employment as a quantitative research intern at Founder Securities, where she was responsible for developing CTA strategies and constructing trading algorithms for cryptocurrencies. Ying enhanced her programming abilities by taking MOOC courses such as the machine learning certificate from Coursera, Baruch University's C++ certificate, and additional certifications. Aside from work, Ying is an art enthusiast and opera-lover.

Chen, Yulin



Yulin Chen earned a master degree in mechanical engineering at the University of California at Berkeley. His research focused on high performance computational combustion/chemical kinetic modeling for engine development using numerical methods, statistical computing, parallel computing, etc. To date, Yulin has authored eight and co-authored twenty-three peer-reviewed papers, and served as reviewer for seven international acclaimed journals more than forty times. Upon graduation, he worked as a senior fluids/thermal solver developer at Gamma Technologies in Chicago. During his tenure at Gamma, he developed tabulated chemistry approaches for numerically solving chemical kinetics in reactive flows, a prohibitively time-consuming ODE system. Prior to joining the Berkeley MFE program, he took a three-month data scientist bootcamp at Bittiger and deep learning specialization through Coursera. In Udacity's machine learning nanodegree, he finished the capstone project on using news to predict stock movements. He also took a differential equations course by Datasim with a project of convertible bond pricing using finite difference methods in C++. Yulin passed the CFA Level I exam. In his leisure time, he enjoys snowboarding, basketball, swimming and traveling.

Chenna, Aashish



Aashish Chenna received his bachelor degree in civil engineering from the Indian Institute of Technology in Madras. Before the MFE program, Aashish worked at Barclays as an AVP on the credit trading desk where he generated new trading ideas each week that increased revenues by 30% while deleveraging the riskiest components of the portfolio. Based on his work, Aashish was promoted to the special situations group where he packaged exotic credit derivative products and arranged ad-hoc financing for firms requiring bespoke lending solutions. Aashish developed and implemented quantitative filtering strategies to identify dislocations in the bond market and to generate alpha on trader positions. Before Barclays, he worked at Standard & Poor's where he packaged structured equity derivative products. Aashish has also developed arbitrage strategies to capture mispricings in cryptocurrencies and generated a 7x profit on deployed capital. Aashish passed the CFA Level III exam and completed the FRM program. In his spare time, he enjoys Sci-Fi, Hip Hop music, poker, and swimming.

Cheruvu, Anurag



Anurag Cheruvu received his dual bachelor and master degrees in mechanical engineering and chemistry from the Birla Institute of Technology and Science in Pilani. During his studies, Anurag interned with five companies, thereby gaining experience in asset management, investment banking, corporate finance, equity research, and indexing. In 2015, Anurag attended the London School of Economics to pursue a summer course on 'Options, Futures and Other Financial Derivatives.' This experience gave him a glimpse into the realm of quantitative finance. Upon returning to college, Anurag embarked upon finance-related projects that allowed him to apply his quantitative skill set. He attempted a novel modification of Markowitz's portfolio theory using factor models that led to a research paper now under review for publication in a peer-reviewed journal. After graduation, Anurag joined Morningstar's indexing team where he managed the Global Upstream Natural Resources index and other marquee products. Anurag passed the CFA Level III exam. In his spare time, he likes to travel and play table tennis.

Choudhury, Sagnik



Sagnik Choudhury holds a bachelor degree in computer science from BITS Pilani and an MBA from the Indian Institute of Management in Bangalore. Before joining the Berkeley MFE program, Sagnik worked as an associate on the automated trading controls strategists team at Goldman Sachs in Bangalore, where he was responsible for dozens of algorithms mitigating trading risk across Asia. Sagnik was on a team attempting to defeat Goldman Sachs risk controls. Whenever a vulnerability was discovered, he would write new code using Slang, C++, Python, and Java. While in the MBA program, Sagnik interned with the Goldman Sachs structured credit team where he was responsible for credit analysis, free cash flow modeling, distressed firm analysis, and asset surveillance. Sagnik worked at the Morgan Stanley equity research technology group for three years where he was responsible for developing lynchpin components for the new Research 2.0 publishing and distribution system. Sagnik has passed the CFA Level II and FRM Level I exams. In his spare time, Sagnik enjoys playing card games, writing horror fiction, and learning to play the violin.

Cohen, Alexandre



Alexandre Cohen obtained his bachelor degree in applied mathematics from Paris-Dauphine University and graduated from ESCP Europe business school with a master degree in management. Upon graduation, he worked for two years as an analyst in the equity derivatives structuring and pricing team at Commerzbank AG where he priced exotic structures for institutional clients, generated new trading ideas, developed new pricing and booking tools, ran backtest simulations and monitored the hedging and execution of primary and secondary trades. Before that, Alexandre interned as a prime brokerage analyst at Societe Generale in London working in the repo markets and regulatory infrastructure. Alexandre also utilized his quantitative skill-set during an internship at a Shanghai-based hedge fund specializing in the fixed income markets. His main hobbies include music and sports, in particular, piano and tennis.

Corthorn, Nicolas



Nicolas Corthorn graduated from Pontificia Universidad Catolica de Chile, where he received a bachelor degree in engineering with a minor in mathematics. Upon entering the university, Nicolas was awarded a merit scholarship. Nicolas also volunteered to teach math to at-risk children and taught calculus to a blind engineering student. Before joining the Berkeley MFE program, Nicolas worked in the strategic planning management group at Santander Bank. Nicolas was responsible for developing a forecast model of demand deposits for the liquidity team, elaborating upon a forecast of transactions and a daily optimization of the workforce for the management team. Nicolas constructed models to forecast increases in the current accounts for the commercial banking group and automated CPI forecasting for the economic studies department. Nicolas has used programming, database, statistics, and machine learning techniques to conduct research. He passed the CFA Level I exam. In his spare time, Nicolas enjoys playing soccer, jogging, and chess.

Crelier, Laurent



Laurent Crelier graduated with a bachelor degree in computer science and signal processing from Telecom SudParis and earned a master degree in actuarial science and statistics with honors from La Sorbonne Université. During his studies, Laurent had the opportunity to work on machine learning on both the research side at Sorbonne Université and the application side through Kaggle competitions. One of his projects involved implementing GARCH copula models on equity portfolios for risk management purposes. He worked for the Credit Agricole assurance group as an apprentice actuary where he helped to develop and implement the Jarrow-Lando-Turnbull stochastic model of credit risk in their ALM model, impacting \$300 billion of assets. This experience is the topic of his master memoir. He also worked on various quantitative models to reconcile Solvency II with Basel III capital requirements. Laurent is an associate of the Institute of Actuaries of France. He gained experience in asset and liability management consulting and C++ programming through internships. During his free time, he enjoys running and playing rugby.

Crossett, Ed



Ed Crossett is a capital markets professional with experience solving problems and discovering relationships between seemingly unrelated concepts. Ed received his bachelor degree in finance from Tulane University. There he founded a student-run trading firm utilizing foreign exchange arbitrage strategies. Upon graduation, Ed worked at Lehman Brothers and Barclays Capital where he focused primarily on nonlinear and volatility products; he was responsible for identifying hedging opportunities to mitigate discontinuity and model risk for various portfolios of exotic structures. At Deutsche Bank and American Express, Ed led several projects to implement risk-based P&L attribution frameworks, risk management and trading systems, and pricing models and methodologies for a wide array of derivatives products. More recently, Ed has worked at a fintech firm where he provided modeling, valuation, and data-driven solutions for hedge funds. Ed has also been immersed in the study of mathematics, computer science, and developing machine learning algorithms. Ed passed the CFA Level I exam and is a member of the New York Society of Securities Analysts. He is also an instrument-rated private pilot and a member of the AOPA.

Cui, Shiyong



Shiyong Cui obtained her bachelor degree with honors in applied mathematics from Beihang University. Before joining the Berkeley MFE program, Shiyong interned as a quantitative modeler at a boutique hedge fund in Beijing. There she was responsible for overseeing a daily equity trading strategy in the Chinese A-Share market. Shiyong worked as a full stack engineer, producing a pipeline system for equity strategy construction, evaluating hundreds of factors to a final refinement of four alpha trading models with deployed capital of 10 million RMB, generating a Sharpe ratio of 3.7. Shiyong also designed flexible backtest framework for the equity group. During her undergraduate study, Shiyong interned for six months at CICC, where she was exposed to a wide variety of hedge fund products. She collaborated with colleagues to make fund of funds allocations and analyze different hedge fund strategies. Shiyong has studied machine learning techniques. In her spare time, Shiyong enjoys cycling and going to the gym.

Cui, Xuening



Xuening Cui graduated from Tsinghua University with dual bachelor degrees in economics and finance, and law. Her outstanding academic achievement garnered her the Beijing Excellent Graduate designation. While pursuing her degrees, Xuening completed five internships within the financial sector. During her ten-week summer internship in derivative sales at J.P. Morgan, Xuening worked with the trading and structuring team, applying her quantitative skills to analyze data, propose trading ideas and prepare pitch books. Xuening improved her programming and math skills during her internship at Derivatives China Capital where she wrote Python code to optimize portfolio positions using Barra factors. She also created a VBA tool to increase option trading efficiency. Since graduation, Xuening has proactively sharpened her skills in mathematics, statistics, programming and machine learning. Xuening has participated in five finance-related research projects using NLP, data analysis, mathematical modeling, and Matlab. She passed the CFA Level I and FRM Level II exams. In her spare time, she enjoys traveling and cycling.

Desai, Sharvari



Sharvari Desai graduated with a bachelor degree in information technology from the University of Mumbai and received her MBA, with a major in finance, from the Indian Institute of Management in Calcutta. During her MBA, she interned with Edelweiss Group where she researched algorithmic trading within the retail capital markets. Sharvari also worked on the design of high-frequency trading strategies. After graduation, she worked as a discretionary trader on an Edelweiss prop desk, where she traded Indian equities and futures employing directional and market neutral strategies. Sharvari independently managed a \$3M trading book, generating returns 2.5x greater than the benchmark index over a six-month timeframe. She has researched the financial services, information technology, transportation, and pharmaceutical sectors. Sharvari has devised systematic trading strategies on sector fundamentals and has implemented trading strategies around IPOs, corporate events and macro events such as political elections. She was identified as an Emerging Leader within the Edelweiss group and nominated for the Risk Titans corporate award. In her spare time, she enjoys music and dance.

Dhall, Vikrant



Vikrant Dhall graduated with a bachelor degree in computer engineering and worked with Samsung India in their R&D division as a C++ programmer on the mobile multimedia team. Subsequently, Vikrant earned his MBA from the Narsee Monjee Institute in Mumbai. After graduation, he worked as a manager in the project finance group at ICICI Bank, where he used his financial modeling skills to perform credit analysis, asset restructuring and commercial due diligence to assess multi-billion dollar domestic and cross-border infrastructure and real estate projects. Vikrant received a high-performance rating during his first performance review. Subsequently, he worked as a relationship manager within corporate banking where he structured short term financing, and FX hedging solutions such as forwards, options, and interest rates swaps to large clients. He passed the CFA Level II exam. Vikrant is passionate about the use of technology to solve complex financial market problems and has completed multiple MOOCs in machine learning and deep learning. In his leisure time, Vikrant enjoys cooking, running, and trekking.

Ding, Yuan



Yuan Ding received his bachelor degree with honors in mathematics from Zhejiang University. During his undergraduate studies, Yuan took a comprehensive curriculum including applied mathematics, statistics, programming and finance, gaining analytical and technical skills such as machine learning and web crawling. Before graduation, Yuan interned at Full Harvest Asset Management in China, where he investigated the seasonality and momentum effect on commodity futures and the predictive power of macroeconomic factors over the performance of market index futures. Yuan converted this research into profitable trading strategies. Yuan also interned in the research department at Everbright Securities, where he tested the effectiveness of fundamental and technical factors in stock selection. He designed a multi-factor model for trading equities. With these projects, Yuan has applied advanced statistical analysis to real-world problems, thereby gaining valuable insights and further honing his Python programming skills. Before joining the Berkeley MFE program, Yuan passed the CFA Level I and FRM Level I exams. In his spare time, Yuan enjoys traveling, watching movies and playing the saxophone.

Dutta, Aniruddha



Aniruddha Dutta earned his Ph.D. in physics from the University of Central Florida, where he developed a strong background in numerical methods, statistics and programming languages such as Python, Matlab and R. His research focused on developing monte carlo multi-slice algorithms for studying the inelastic scattering of high energy electrons and ion-solid interaction inside semiconductor materials. His work was published in Physical Review E and Physical Review Letters. Before joining the Berkeley MFE program, Aniruddha was a postdoctoral data scientist at Queen's University in Canada. His research topic was pricing counter-party credit risk of curve dependent derivatives using radial basis functions. Aniruddha designed and implemented neural network (NN) architectures like LSTM and genetic algorithm NN using Tensor Flow to predict corporate credit ratings and bankruptcy. Aniruddha currently serves as a reviewer for several academic journals and is a guest editor at Frontiers in Physics and Data. He is interested in applying natural language processing to the finance sector. In his spare time, Aniruddha enjoys photography, water sports and watching stand-up comedy.

Fidelin, Lucas



Lucas Fidelin attended ENSAE ParisTech where he studied applied mathematics, statistics, and economics. He will officially receive his master degree from ENSAE upon completion of the Berkeley MFE program. While at ENSAE, Lucas completed several research projects in statistics and machine learning. Using advanced data analysis and clustering methods, Lucas produced a report on the link between the standard of living and political opinions in France during the 2012 elections. While employed at a transportation company, Lucas used advanced linear regressions and machine learning techniques such as random forest to improve passenger forecasting. Lucas has completed several courses focusing on deep learning and big data topics. During his internship at BNP Paribas, Lucas worked within the quantitative team of the global market risk group. There he used R to implement a tool for anomaly detection using isolation forest as well as distance and density-based techniques. Lucas also implemented several portfolio optimization strategies in Python. In his spare time, Lucas enjoys the cinema and playing rugby, golf and tennis.

Finkelstein, Gary



Gary Finkelstein graduated with a bachelor degree in business science from the University of Cape Town. His rigorous double major in actuarial science and statistics included courses in mathematics, finance, economics, and stochastic calculus. While at university, Gary's keen interest in the real estate market led him to develop a simple but effective model to evaluate the suitability of properties for investment purposes. The model allows an investor to calculate the size of the initial deposit required to set up a self-financing property portfolio. In his final year of study, Gary completed a research project with Allan Gray Investment Management, which analyzed the appropriateness of performance fees in the South African unit trust industry. Following his graduation, Gary completed an internship at DataProphet, a Cape Town-based machine learning solutions firm. His contribution was the training and testing of an object detection model. Gary passed the CFA Level I exam.

Fortineau, Olivier



Olivier Fortineau attended ENSTA ParisTech where he studied applied mathematics, statistics, and economics. He will officially receive his master degree from ENSTA upon completion of the Berkeley MFE program. During his studies, Olivier completed several projects in statistics including implementing variance swap pricing in C++ and the application of the finite element method to the pricing of European options in C++. Before joining the Berkeley MFE program, Olivier completed the Udacity Machine Learning Engineer nanodegree. Last year, Olivier interned at Université du Québec À Montréal, during which he studied the interpretability and fairness of machine learning algorithms. Olivier also interned as a counter-party risk analyst at Société Générale. During this time, he used stochastic calculus to develop a new model for the calculation of interest and inflation rates, the implementation of the calibration methodology and the impact on EEPF and CVAR risk measures. In his spare time, Olivier enjoys reading French literature and is an avid sailor. He is also interested in economics and geopolitics.

Gandhi, Rohan



Rohan Gandhi graduated with a bachelor degree in mechanical engineering from the Indian Institute of Technology in Madras. During his undergrad, Rohan interned on the synthetic equity sales desk at Deutsche Bank, where he developed a user-friendly research platform to provide market intelligence across Delta 1 products before an initial sales call. At the end of his internship, Deutsche Bank offered Rohan a full-time position as a trader assistant on the synthetic equity delta 1 desk. Rohan's primary responsibilities involved daily hedging and risk management of equity and FX exposures on client swaps. To make his job easier, Rohan built a tool to organize the desk's financing swaps inventory to reduce associated balance sheet costs. Rohan passed the CFA Level II exam and plans to complete the third level soon. Rohan likes to play table tennis, watch cricket, thriller movies and TV in his spare time.

Garg, Mayank



Mayank Garg obtained a bachelor degree with distinction in computer science from GGSIPU in India, a master degree in business with merit from ESCP Europe, and post graduate diploma in management from the Management Development Institute. Mayank has experience working as a trader with a Dutch mutual fund and a London based hedge fund. Mayank has multi-asset exposure in both cash and derivative instruments across the globe. At Ostrica BV, Mayank was responsible for managing the EUR 150M fixed income portfolios with a wide spectrum ranging from U.S. T-Notes to emerging market high yield in both local and hard currency. Mayank was also involved in research and automation efforts at the fund, conceiving mid-frequency alpha overlay strategies for low yielding European debt funds generating a >1 Sharpe. He also co-manages an equity portfolio, which was nominated as a UCITS global best performing fund, and UCITS global best emerging fund (2017-18). At Ostrica, Mayank worked with statistical arbitrage strategies involving futures on benchmark indices, sovereign bonds, and G-10 currency pairs. Personally, Mayank is a student of Ido Portal method.

Goyal, Ritvik



Ritvik Goyal completed his bachelor and master degrees in materials science & engineering from the Indian Institute of Technology in Bombay. During his undergrad, Ritvik interned at Milestone Capital, a real estate private equity fund, where he worked on project financing and cash flow modeling. This experience piqued his interest in financial modeling, inspiring Ritvik to join the market risk quants team at Nomura where he constructed and implemented various regulatory standardized models. Ritvik worked on the SIMM model, where he measured the initial margin requirements for bilateral OTC derivatives by shocking portfolio greeks. Ritvik scrutinized ISDA data sets to recalibrate the SIMM pricing model. Under the new Basel FRTB regulations, he capitalized Nomura's linear and nonlinear market risks. Leveraging his strong skills in Python, SQL, and MDX, Ritvik built an engine to calculate exposure at counterparty default. Using stochastic mesh, Ritvik developed a monte carlo, path dependent model for pricing American options. Besides derivatives pricing, Ritvik has a keen interest in machine learning and time series analysis and has worked on clustering and Q-learning projects. Ritvik likes to play squash, travel and listen to music in his spare time.

Gupta, Akshay



Akshay Gupta graduated with bachelor and master degrees in electrical engineering from the Indian Institute of Technology in Delhi. There, Akshay established a strong foundation in calculus, applied mathematics, macroeconomics, and microeconomics. Working on his thesis in collaboration with the London School of Hygiene and Tropical Medicine, Akshay used machine learning and regression techniques to analyze public confidence in immunization programs. Upon graduation, Akshay joined the natural language processing team at the Samsung Research Institute. While there, Akshay worked extensively on statistical and probabilistic models for information extraction, building a robust dialog management system for the Bixby virtual assistant. Before joining the Berkeley MFE program, Akshay worked for two years at Deutsche Bank as a quantitative analyst on the treasury desk of the TradeFinder team. During his tenure, he developed frameworks in Matlab and Python for daily P&L and risk reporting, cash reserve forecasting, and funding requirements across geographic regions. Akshay passed the CFA Level II exam. In his spare time, Akshay enjoys playing cricket, painting in oil and charcoal, and traveling.

Hong, Chuhan



Chuhan Hong earned his bachelor degree in mathematics and finance at Jiao Tong University in Shanghai and his master degree in applied statistics from Fordham University. Chuhan's undergraduate dissertation addressed the topic of long-term memory of volatility on the Shanghai Stock Exchange. One of his school projects centered on temporal clustering and GARCH models to conduct comparative research. After graduation, Chuhan interned at the Bank of China and HFT Investment Management where he performed quantitative research and analysis. During his graduate studies and with an eye on Wall Street, Chuhan took classes in C++ for financial engineering and advanced calculus to strengthen his quantitative skills through practical projects. Before joining the Berkeley MFE Program, Chuhan received training in machine learning theory with proficiency in R and Python through Udacity and Coursera. In his spare time, Chuhan enjoys reading, working out and playing basketball.

Ji, Raymond



Raymond Ji earned dual bachelor degrees in applied mathematics and financial engineering from Ecole Centrale Paris. Ray will officially receive his master degree from Centrale upon completion of the Berkeley MFE program. During his studies, Raymond interned with the Equity Derivatives Structuring team at Commerzbank AG in London. While there, Raymond was responsible for the daily computation and analysis of complex structured products. Using his VBA proficiency, Ray created several pricing and reporting tools to optimize operational tasks. Raymond also interned for six months as a data analyst at Amazon France where he designed country-wide performance reports using VBA and SQL. Raymond wanted more experience applying data science principles to quantitative finance and accepted a position at MICS Paris, a math and computer science laboratory associated with CentraleSupélec. There, he built a sentiment index of the French stock market based on artificial neural network structures and the application of natural language processing methods to textual data. Raymond passed the CFA Level I exam. In his free time, Ray enjoys traveling, playing chess and winning at poker.

Jin, Lei



Lei Jin earned her bachelor degree in electrical and electronic engineering with first class honors from the University of Nanyang Technological University in Singapore. After graduation, Lei worked for three years as a data scientist, first at Citigroup and then at AON in Singapore. In 2016, Lei began work at GIC, the Singapore sovereign wealth fund, where she produced daily estimates on market value rankings for telecommunication companies based on the predictions of company earnings and analysis of subscriber behavior. Most recently, Lei worked in the equity research department at Neuberger Berman, where she constructed tools to convert fundamental investment signals into quantitative trading strategies. Lei has also created several machine learning models to evaluate credit card transactional data, clickstream data and web search results to derive insights, trends and profit opportunities for investment in the retail sector. In her spare time, Lei enjoys swimming and traveling.

Jing, Xin



Xin Jing received his bachelor degree with honors in applied mathematics and statistics from the University of Toronto. There he developed his passion for utilizing machine learning with large data sets to derive financial insights. While at school, Xin was a member of a team that won second place in the Governor's Challenge, the Bank of Canada's monetary policy competition. During a research internship at Tsinghua University, Xin developed an LSTM neural network for dynamic hedging which consistently outperformed five baseline models. Xin implemented Kronecker-Factored Approximate Curvature (K-FAC), one of the fastest optimization algorithms for deep neural networks. In 2018, while working for the Computational Linguistics Group, Xin implemented a Google Brain speech recognition model using REINFORCE algorithm and supervised learning. While at RBC Capital Markets, Xin monitored credit traders' activities and researched the past five recessions. His analysis led to a report on yield curve inversion. Xin has practical futures trading experience using pairs and calendar spread arbitrage strategies.

Kaplan, Jonathan



Jonathan Kaplan graduated from Northwestern University with dual bachelor degrees in mathematics and economics. Upon graduation, Jonathan worked as a catastrophe modeling associate at Elementum Advisors, an RIA specializing in insurance-linked securities. While at Elementum, Jon helped to build and improve risk management techniques and processes. He managed the analytics processes for catastrophe bonds which required calculating the default probabilities of complex financial instruments. Jon then accepted a role in portfolio analytics, tasked with the responsibility of ensuring that funds followed prescribed risk constraints and portfolio manager objectives. Jon streamlined client risk reporting and led an initiative to incorporate updated scientific advancements into the Elementum risk management process. Jon is proficient working with large data sets in Python, R, SQL, and Excel and has experience with machine learning. Jon enjoys playing almost every sport and has a passion for fitness. He is also a fan of indie board games and escape rooms.

Kidd, Morgan



Morgan Kidd earned a bachelor degree with honors in financial mathematics & economics from the University of Victoria. His Honor's thesis evaluated various statistical learning methods to determine how news shocks affect short term volatility in major foreign exchange markets. Before graduation, Morgan interned as a quantitative analyst on a global equities team at BCI, the British Columbia pension fund. There he supported discretionary portfolio managers with ad hoc quantitative research and analytics for factor-based strategies deployed on a portfolio of over \$2.5b. Morgan also spent a year studying economics and business at Yonsei University in Korea, became fluent in the Korean language and intimately familiar with Korean business conventions. Morgan has studied machine learning techniques and recently completed the Machine Learning Engineer Nanodegree from Udacity, where he applied recent decision tree-based models and ensemble methods to predict bankruptcy in mid-sized Polish companies. In his leisure time, Morgan enjoys cooking Asian cuisine, reading historical nonfiction, and playing strategy video games.

Kumar, Rohit



Rohit Kumar graduated with master degrees in mathematics and computing from the Indian Institute of Technology in Kharagpur. Upon graduation, Rohit joined Morgan Stanley's Wealth Management Technology division where he developed various tools to aid financial advisors in analyzing and optimizing portfolio performances. Rohit built an asset allocation system to optimize the weights of different asset classes. Rohit then worked as a core engineering software developer at Tower Research Capital, a high-frequency trading firm. During his two years with Tower, Rohit developed a keen interest in quantitative trading. He worked on a variety of Tower HFT trading desks and created a low latency anomalies detection system to identify faulty intraday trading strategies. He also implemented a generic web framework for visualizing real-time market data. Rohit comes to the Berkeley MFE to enhance his skills applying quantitative techniques to trading strategies. In his leisure time, Rohit enjoys playing cricket, running and traveling.

KUMAR, SAKET



Saket Kumar graduated with a bachelor degree in mathematics from Patna University and earned a master degree in economics from Indira Gandhi National Open University. Upon graduation, Saket joined the Risk Management Department at ICICI Bank. There he worked on derivative products valuation. For several years Saket was an assistant general manager in the Risk Monitoring department at the Reserve Bank of India. He has worked extensively with Value at Risk models, identifying provisioning requirements at the central bank, and has forecasted balance sheet projections and the impacts of money supply, exchange rate movements and capital flows in the economy. Saket constructed and implemented correlation and risk framework models inside the Indian Central Bank for optimization of the foreign exchange reserves portfolio. Saket worked in the Supervisory wing of the Central Bank wherein and was intimately involved in the assessment of risk management practices of the commercial banks. He has passed the FRM Level I exam and holds a diploma in banking. In his leisure time, Saket enjoys photography, driving, traveling, and music.

Lamberti, Maximilien



Maximilien Lamberti obtained his bachelor degree in physics with first class honors from McGill University. For his thesis, Max chose to implement a machine learning algorithm to model the sensitivity of a space telescope detector array, a crucial step in the detection of exoplanets from noisy telescope data. Upon completing his degree, Max followed his passion for data and machine learning and joined the data science team Bonify, a Berlin-based fintech startup. There he algorithmically classified bank transaction data, developed an automated analytics pipeline and built machine learning applications. Max also engages in several personal software coding projects. For example, Max created three Alexa voice applications, including the first German voice app for personal financial management. His apps currently sport a combined user base upwards of 10,000 users. More recently, Max has been interested in natural language processing, cloud computing, and algorithmic trading. From data collection to order placement, Max built a fully automated, cloud-based, live trading system for cryptocurrencies. At Berkeley, Max was the graduate student instructor for the pre-program course "Statistics for Financial Engineers."

Langlois, Romain



Romain Langlois attended Ensaie ParisTech where he received bachelor degrees in applied mathematics, statistics, and economics. He will officially receive his master's degree from ENSAE upon completion of the Berkeley MFE Program. During his studies, Romain completed several research projects in statistics and machine learning. In collaboration with BFT Investment Managers, Romain used state-of-the-art time series analysis to build a model to nowcast the GDP of the Eurozone. During a summer internship at the Australian Council of Social Service, Romain developed a mathematical model using company behavioral characteristics to detect fraud. Romain has worked as a quantitative research intern at Descartes Trading, the proprietary trading entity of Société Générale. There he used time series data, statistics and machine learning to develop systematic trading algorithms for the Global Macro team. In his spare time, Romain enjoys playing the piano in small groups, as well as reading literature and running.

Leung, Chloe



Chloe Leung studied actuarial mathematics at the Chinese University of Hong Kong and Penn State University and graduated with a bachelor degree in mathematics. During her studies, she built a solid theoretical and practical foundation in mathematics and finance through a multitude of courses and internships in the financial industry. Chloe discovered her passion for computer programming when she worked as an actuarial intern at Voya Financial. One of her projects used VBA to create an automated database to price cases and cut data processing time by 95%. After graduation, Chloe joined Deloitte Consulting as a data science analyst in their Advanced Analytics and Modeling practice. She combined leading-edge data techniques and predictive modeling to help clients make informed business decisions and optimize business processes. Chloe developed machine learning solutions for fraud detection, price optimization, and risk classification for her clients in the banking and insurance industries. Besides consulting, Chloe also worked as an independent data scientist for a local non-profit organization. There she built a decision tree model using youth risk factors to predict successful outcomes and recommend targeted interventions. In her spare time, Chloe enjoys zumba and cooking.

Li, Chang



Chang Li received his bachelor degree with honors in mechanical engineering from Tsinghua University and a master degree in robotics from the University of California at Los Angeles. Chang has worked on human-robot interaction and the development of an autonomous robotic system, using computer vision algorithms. Chang is familiar with artificial intelligence methods, including Stereo-vision, K-mean clustering and learning by demonstration. Upon graduation, Chang worked as a quantitative intern for six months with Zheshang Fund Management, a Chinese mutual fund with over \$10B in AUM. His work focused on option-based risk modeling, strategic asset allocation and developing alpha factors for trading. Before joining the Berkeley MFE program, Chang worked for a year as a quantitative strategist at Yaozhi Asset Management, a Shanghai-based multi-strategy hedge fund. At YZAMC, Chang specialized in multi-alpha strategies, quantamental research, risk management models, sector rotation and alpha strategies. Chang passed the CFA Level I exam. During his spare time, Chang enjoys photography, basketball, and playing the piano.

Li, Dingyan



Dingyan Li graduated with a bachelor degree in economics and finance from Tsinghua University. There Dingyan discovered his passion for finance, math, and programming. One of his school projects was an empirical study using Barra multi-factor models to assess prospect factors in the Chinese stock market. During an internship at Huatai Securities in China, Dingyan developed two types of smart beta strategies (based on low volatility ranking and volatility-related weighting methods) using Python and Matlab, then conducted thorough research on their optimization. Dingyan was responsible for designing entropy-based trading strategies in an attempt to measure the “unpredictability” of past price data, which in turn inspired him to propose a new approach for overfit-testing called “Permutation Entropy Algorithm” in his final year thesis. This method successfully selected profitable strategies against the benchmark and outperformed traditional overfit-testing models including the White Reality Check. Dingyan is an avid traveler who has explored ~50 cities across thirteen European countries. Dingyan enjoys soccer, swimming, orienteering and cooking in his spare time.

Li, Flora Yue



Flora Yue Li graduated with bachelor degrees with first class honors in quantitative finance and statistics from the National University of Singapore. After graduation, Flora joined the banking and fintech industry and quickly became an experienced senior consultant with both strong technical capabilities and a persuasive communication style. Flora developed exceptional programming skills when she worked on complex quantitative modeling projects written in Java, JavaScript, HTML, C#, C++, and XSLT. Flora mastered R, Python, Matlab, machine learning and deep learning through school projects and self-study online. Flora polished her financial sector knowledge during internships and employment with Citibank, ANZ, FinMechanics, and GIC. She was responsible for projects such as building a trade enrichment tool for FX products, booking model evaluation for money market products, trade validation workflow design, FX and fixed income settlement engine building, curve validation using multi-curve pricing models, etc. Flora passed the CFA Level III exam. She has also passed the FRM Level I exam. In her spare time, Flora is a table tennis enthusiast, a certified scuba diver and a certified paragliding pilot.

Li, Hanson (Hengxin)



Hanson Li graduated with a bachelor degree with distinction in mathematics and a minor in computer science from the University of Waterloo. Before joining the Berkeley MFE program, Hanson worked as a trading analyst at the Bank of Montreal. While collaborating with the head quant, Hanson validated an algorithmic trading strategy based on Kaufman’s Adaptive Moving Average (KAMA) and researched the statistical distribution related to merger gaps. Hanson is an accomplished R programmer, having published the VAMC package on the CRAN repository to perform fair market valuations for synthetic portfolios of variable annuities. This R package helps the assessment of metamodeling techniques of variable annuities in academia. Driven by his interest in natural language processing, Hanson also jointly developed the Unsupervised Lexicon-Based Sentiment Topic Model (ULTSM) to predict sentiment scores on Yelp reviews. Hanson is currently co-authoring a research paper on the probability equivalence level of VaR and ES (PELVE-index). The Journal of Banking & Finance will publish the research findings in 2019.

Li, Xian



Xian Li obtained his bachelor degree in mechanical engineering from the University of California at San Diego. After graduating, Xian worked as a project engineer at the biotech company Cognionics. Xian was responsible for designing and improving EEG headsets and sensors based on customer feedback. Xian developed a new design for the base structure, optimizing the space occupied by headset components and simplifying the geometry to improve manufacturability. Xian's new design set a benchmark for the number of EEG channels possible, leading to the design of the company's current flagship product, the Quick-30 EEG headset. With his strong quantitative background, Xian used Matlab to optimize Cognionics' dry flex and hydroflex sensors to enable power spectral density analysis on various designs to measure the signal to noise ratio. During his spare time, Xian enjoys playing tennis, badminton, table tennis, and trading card games.

Li, Xiao



Xiao Li graduated with a bachelor degree in statistics and earned the Dean's List honors from the National University of Singapore. Before joining the Berkeley MFE program, Xiao worked for two and a half years as a data analyst at Bloomberg where she managed forecasting models for companies listed in ASEAN, Australia, New Zealand, and India. Xiao researched macroeconomic trends, consolidating specific company data and analyzing their financial performance. Xiao used Python on various projects to determine the coverage and quality of Bloomberg's datasets and made recommendations for improvement. Bloomberg management agreed with her analysis and implemented changes helping to reduce the percentage of stale analyst recommendations on the Bloomberg terminal from 10% down to 3%. Xiao co-created a monthly earnings estimates outlook report highlighting sentiment on stock markets in leading ASEAN economies. Before Bloomberg, Xiao worked as an associate consultant at Synpulse Management Consulting, a boutique Swiss firm. There she was assigned to a business process outsourcing project for a leading European private bank spinning off its entire back-office operations in Singapore and Hong Kong. Xiao enjoys jogging and traveling.

Li, Yangyi



Yangyi Li obtained her bachelor degree in financial economics and statistics with high distinction in three years from the University of Toronto. She went on to pursue her master degree in financial economics at the University of Toronto and graduated with the best academic performance in her class. Before joining the Berkeley MFE program, Yangyi worked as a full-time analyst at the investment and corporate banking department of BMO Capital Markets, where she was actively involved in deals helping large corporate clients access the credit capital markets. Yangyi was responsible for building financial models to evaluate companies' financial strength in various scenarios and performed thorough due diligence and credit analysis through primary and secondary research. Yangyi also worked as an analyst on the portfolio strategy team at the Ontario Teachers' Pension Plan (OTPP), where she conducted top-down research of global equity markets and sectors to identify significant market narratives and investigated linkages between equity markets and macroeconomic data to exploit possible mispricings. Yangyi implemented Barra risk models and used Matlab to determine factor exposure analysis of the top equity positions. Her work significantly enhanced operational efficiency generating economic chart packs through VBA and R. Yangyi passed the CFA Level III and FRM Level II exams. In her spare time, Yangyi enjoys playing the piano and traveling.

Li, Yuanrui



Yuanrui Li received a bachelor degree in computer science from the Nanyang Technological University in Singapore. Yuanrui was a member of the NTU Supercomputing team, winning Application Innovation and Deep Learning Excellence awards in international competitions. Before joining the Berkeley MFE program, Yuanrui worked as a technology analyst at J.P. Morgan. Yuanrui worked directly with traders and quantitative researchers on the FX desk and gained valuable trading and risk management experience. Yuanrui used her data science skill set to develop useful STP tools boosting the efficiency of the trading desk. Yuanrui also performed automated backtesting on trading strategies and implemented financial models for derivative price discovery. In her spare time, Yuanrui enjoys volunteering. She was a member of J.P. Morgan's 'Force for Good,' a social innovation, skilled-volunteerism program. Yuanrui also designed a new website for the Singapore Red Cross.

Liang, Zhiyuan



Zhiyuan Liang graduated from Peking University with a dual bachelor degree in physics and economics. He earned a master degree in finance from Tsinghua University to further improve his understanding of finance, markets, and trading. As a student, Zhiyuan used data science skills and time-series analysis to perform research on Lorenz system differential equations. Zhiyuan discovered multiple-exponential and power law-exponential distributions of return intervals during the transition from periodic to chaotic states. Zhiyuan interned at the China Finance 40 Forum where he absorbed additional knowledge of China's economic system. Zhiyuan gained practical experience at Hongqiang Taihe, a quantitative hedge fund where he utilized his data science and C++ skills to manage a data system and develop new quantitative indices. Last year, Zhiyuan accepted a role as an equity research analyst at Bajun Investment Management, a hedge fund in Beijing.

Liu, Benjamin



Benjamin Liu graduated with a bachelor degree in economics and finance and a minor in mathematics from the Chinese University of Hong Kong. For his final year project, Ben implemented an algorithm that combined auxiliary cost function and meta-learning to improve the performance of an Atari game. Before joining the Berkeley MFE program, Ben interned on the equity derivatives structuring team of China International Capital Corporation (CICC). There he worked on the new intraday options hedging strategy, wrote VBA code to automate operational processes and designed a payoff structure to satisfy counter-party requirements. During a second internship in the CICC Equity Research Department, Ben developed a systematic equity research protocol for fundamental investment. Working on the HFT trading team of KN Quant, Benjamin gained experience with cryptocurrency market making and developed several new trading strategies in the equities market. Ben interned at South Seven Capital, where he was involved in developing a trend following strategy on E-Mini futures. In his spare time, Ben enjoys playing poker, hiking, traveling, and photography.

Liu, Hanqing



Hera Liu received her bachelor degree with a double major in computer science and economics from Smith College. During her undergraduate studies, Hera used Stata and Python to investigate the causal effect of the Veterans Affairs' disability program on the civilian labor market. Before joining the Berkeley MFE program, Hera worked as a research associate at Economists, a premier economic consulting firm headquartered in Washington, D.C. In that capacity, Hera performed quantitative data analysis on the potential adverse effects of proposed mergers and acquisitions. She used Stata, Python, and SQL to determine possible damage assessments. Hera also assisted in drafting export reports and prepared spreadsheets, charts, and maps to be used in litigation. Hera passed the CFA Level I exam and scored above the 90th percentile. In her spare time, Hera enjoys reading and minesweeping.

Liu, Xiyu



Xiyu Liu graduated with a bachelor degree in management information systems from the Harbin Institute of Technology, and obtained her master degree in information technology from the Hong Kong University of Science and Technology. Upon graduation, Xiyu joined Telarix. There she was responsible for clients in the APAC region and worked on multiple implementation projects. Later, Xiyu moved to Taiping Financial where she gained experience in securities brokerage and asset management from an IT perspective. She was quickly promoted and lead a team implementing new systems and conducting account analysis. This gave Xiyu a solid knowledge base of data composition. Xiyu passed the CFA Level II exam and obtained various certificates from Coursera including machine learning, R, Python etc. All these experiences have contributed to her profound interest in the application of data science/artificial intelligence to finance and she is eager to pursue a career in fintech after graduation. In her spare time, Xiyu also has passion for yoga, swimming, and scuba diving.

Lu, Ruinan



Ruinan Lu graduated with dual bachelor degrees in mathematics and economics and a master degree in mathematics from the Courant Institute of Mathematical Science at New York University. During her studies at NYU, Ruinan acquired a high level of expertise in mathematics, statistics, and programming, and soon became fascinated with the application of data science and AI to the finance sector and investment industry. Ruinan collaborated with teammates on a machine learning project to analyze Lending Club data sets and predict loan default rates. Ruinan was a fixed income analyst intern at Kalotay Analytics, where she developed a mathematical program to approximate the after-tax improvement of a tax-loss harvesting strategy. Another project required Ruinan to use C++ code to convert a "Restart the Short-Term Clock" strategy to a basic buy-and-hold taxable portfolio using monte carlo simulation. A white paper describing her research entitled "Turbocharged Tax Loss Harvesting" is now under review by a leading academic journal. In her spare time, Ruinan enjoys traveling, running, and playing the piano.

Lu, Victor



Victor Lu graduated with a master degree in applied mathematics from CentraleSupélec. In his final year, Victor also earned a master degree in insurance and risk management from the Université-Paris Dauphine. For his thesis, Victor explored and implemented in Matlab regularization methods to better estimate functional connectivity of neurons from spike train data. He solved the challenges posed by the high size and high dimensionality of the data by using the SIE regularization method along with a new accelerated gradient update to reduce the computation time. Victor interned as an actuary in the models department of BNP Paribas. There, he developed two accurate and explainable VBA models to predict the liabilities of the insurer in the mortality scenario of Solvency II. The models strong performance combined actuarial science theory with machine learning predictive models. Before joining the Berkeley MFE program, Victor worked as a front-office consultant at Murex, a leading financial software company. Victor was responsible for software analytics of interest rate derivatives and coached traders at client banks on how to use the software and understand the software's internal models. In preparation for the Berkeley MFE, Victor recently finished Udacity's Machine Learning Engineer Nanodegree and a course to approximate the solution of partial differential equations. In his spare time, Victor enjoys teaching mathematics, painting, reading and visiting art galleries.

Ma, Peisen



Peisen Ma graduated with a bachelor degree in physics from Sichuan University and obtained his Ph.D. in experimental high energy physics from the University of Florida. In graduate school, Peisen was a member of the CMS Collaboration, a particle physics community consisting of members from more than two hundred institutes and universities across the globe researching high-energy physics to advance knowledge of the laws of nature. His doctoral research focused on experimental searches for supersymmetry in elementary particle physics through proton-proton particle collision data delivered in the Compact Muon Solenoid detector at CERN's Large Hadron Collider in Geneva, Switzerland, where he worked one-third of the time during his Ph.D. program. Peisen has extensive experience performing data analysis and modeling with C++ and Python and various data-driven methods such as monte carlo simulation and machine learning techniques. Before joining the Berkeley MFE program, Peisen passed the CFA Level III exam. Peisen speaks Chinese, Japanese, and English. In his spare time, he is an enthusiastic soccer fan and enjoys reading, traveling, video editing, and PC gaming.

Manzo, Marcelo



Marcelo Manzo obtained his bachelor degree in industrial engineering from the Pontifical Catholic University of Rio de Janeiro and the University of Rome. His capstone project was to perform a critical analysis of the Black-Scholes model under the scenario of the political turmoil of Brazilian presidential elections in 2014. During his last semester, he worked as an intern for ENGdB, an Italian IT consulting company, where he rendered cost-breakdown analysis for hardware/software necessary for the new Olympic metro line in Rio de Janeiro. Subsequently, Marcelo moved to the United States to obtain his master in finance degree from DePaul University. Before joining the Berkeley MFE program, Marcelo worked as an intern for Frontier Ventures, researching and identifying attractive venture capital and private equity investments in the Bay Area, Europe, and Moscow. Marcelo has completed several machine learning courses, and in his spare time, enjoys reading philosophy (Kant, Hume, Nietzsche), playing classical piano and playing soccer.

Moore, Thomas



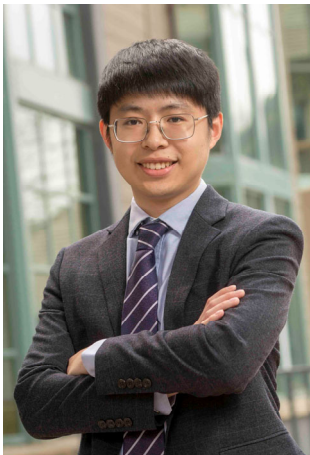
Thomas Moore graduated with a bachelor degree in economics from the University of Chicago. Since graduating, he has researched different options strategies and began working as a self-employed trader in securities. Thomas now manages a portfolio including numerous different systematic and discretionary trading systems across multiple asset classes, including stocks, options, commodities, and real estate. He has used Tensorflow and ANNs to research trading ideas. Thomas has utilized optimization software to create options volatility models around earnings announcements and has also conducted extensive coding projects to streamline order execution between resident Python code and clearing brokers using text-based signals. He is currently building backtesting software for ML-based trading systems in Python using SciKit Learn and Tensorflow. In his free time, Thomas enjoys home renovation projects, volunteering with children's theater, and martial arts.

Ngu, Quang



Quang Ngu graduated with a bachelor degree in electrical engineering from the University of Hawaii and subsequently joined Boeing as a systems engineer. At Boeing, Quang became a subject matter expert in modeling and simulating certain satellite operations in C++ and Matlab. He was part of a team that secured a ~\$4B contract by providing accurate and timely modeling and simulation results to management. While working at Boeing, Quang earned his master degree in electrical engineering and an MBA from University of California at Los Angeles. For his MBA thesis, Quang researched, programmed, and back-tested dozens of quantitative investment strategies. UCLA's endowment invested in one of his investment strategies, and it significantly outperformed the benchmark. In his spare time, Quang is a board game enthusiast and enjoys spending time with his dog.

Pei, Hainuo



Hainuo Pei received dual bachelor degrees in mathematics and computer science from the University of California at San Diego and his master degree in industrial engineering and operations research from the University of California at Berkeley. For his capstone project, Hainuo focused on position profiles of HFT order cancellations, and he developed a statistical model based on relative price levels. This model generalized behaviors of order cancellation at different price levels and positions in the queue. Hainuo also applied machine learning techniques to portfolio optimization using the Graphical Lasso algorithm to improve covariance matrix estimation of asset returns based on the framework of the Markovian Mean-Variance model. Before joining the Berkeley MFE program, Hainuo completed an internship as an investment banking analyst at CITIC Securities, where he participated in an IPO case study and conducted research with financial models and sensitivity analysis on the retail pharmaceutical industry. Hainuo passed the CFA Level I exam. In his spare time, Hainuo enjoys swimming, playing soccer and reading.

raheja, shrey



Shrey Raheja graduated with a bachelor degree in mechanical engineering and a master degree in economics from Birla Institute of Technology and Science in Pilani. Before joining the Berkeley MFE program, Shrey worked as a model validation analyst in the model risk management department at Credit Suisse, where he evaluated and challenged a broad spectrum of risk models in use within the bank. His role involved questioning risk modeling methodologies and assessing model performance against actual market data. During his tenure at Credit Suisse, Shrey has cataloged substantial experience working with models in areas of credit risk, market risk, and economic risk. Shrey has implemented models using R and Python to benchmark production versions of models. While pursuing his degree, Shrey worked with the Central Board of Secondary Education (CBSE) in India to develop content for financial literacy modules for secondary school students. Shrey passed the CFA Level II exam. In his spare time, he enjoys listening to music and playing cricket, football and table tennis.

Ramlal, Kevin



Kevin Ramlal earned a dual bachelor degree in statistics and astrophysics with high distinction from the University of Toronto. While in school, Kevin completed a summer internship at CIBC World Markets where he was placed on the xVA trading desk and learned about risk-related valuation adjustments for OTC derivatives. This experience deepened his interest in derivatives and the financial markets. Upon graduation, Kevin joined IRESS as a market data analyst where he was responsible for maintaining market data databases. In this role, Kevin gained exposure in market microstructure, best practices for database management, and knowledge of the data engineering process between exchanges and data vendors. Most recently, Kevin worked as a quantitative analyst for Metric Asset Management where he used Python extensively to automate operational procedures. Kevin was instrumental in back-testing a baseline multi-factor investing strategy, and successfully optimized and executed a systematic futures trading strategy. Before joining the Berkeley MFE program, Kevin completed multiple courses on machine learning and AI. Kevin passed the CFA Level I exam. Kevin enjoys lifting weights, playing the drums, and watching basketball.

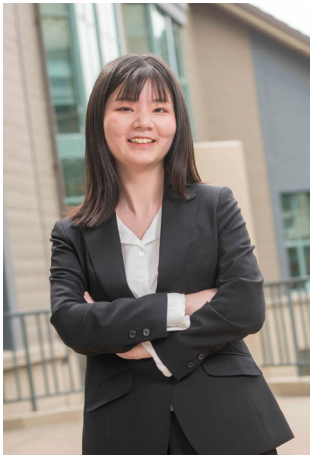
Rao, Junjie



Junjie Rao received a bachelor degree in automotive engineering from Tongji University, where he gained a solid foundation in math, programming, and data science. Junjie has a background in high-frequency trading from his experience working as a quantitative researcher at RedCat Asset Management, where he investigated the microstructure of China's commodity futures market and designed a high-frequency market-making strategy based on limit order book imbalance. He also engineered a machine learning framework with Python for high-frequency trading signals research in the HFT group. Last year, Junjie joined the listed sales & trading team at Morgan Stanley, providing support of equity, equity swaps, and equity derivatives to sales and trading desks. Before joining the Berkeley MFE program, Junjie worked as a quantitative strategist in BitSpace, where he was responsible for developing systematic trend-following strategies for liquid cryptocurrency products on BitMEX and Bitfinex. He also structured customized BTC plain vanilla swap and floor contacts for external clients. Junjie passed the CFA Level I exam with performance above 90%.

Rattananon, Siravit

Siravit Rattananon graduated with a bachelor degree in chemical engineering from Chulalongkorn University in Thailand. While an undergraduate, Siravit interned at the Bank of Thailand where his primary responsibilities were to improve market risk measurements, analyze return and risk attribution of foreign exchange reserve investments, and assist senior risk management managers in creating the Country Risk Report, a proprietary and important quantitative document used as an early warning indicator for foreign exchange reserve management. His internship project entailed conducting monte carlo simulations and portfolio optimization on various statistical models, ranging from a standard risk model in the financial industry to Vine Copula using R and Matlab to examine the most reliable model for quantifying value-at-risk and optimizing portfolio construction for Thailand's foreign exchange reserve management. After graduation, he worked for Bangkok Bank as a market risk analyst in the risk management department where he conducted model validation for pricing, VaR and sensitivity analysis, focusing mainly on foreign exchange products, interest rate swaps and cross currency swaps. In his spare time, he enjoys reading and playing soccer.

Ren, Zhuo

Zhuo Ren received dual bachelor degrees in mathematics and finance from Wuhan University. After graduation, Zhuo attended the University of California at Berkeley to study computer science and data science. During projects at Cal, Zhuo applied natural language processing on Twitter data to analyze tweets' sentiment. She also did feature engineering for emails classification by NLP, EDA, and PCA and applied machine learning methods including logistic regression, Bayes classification, SVM and random forest to classify spam. In the national project at Wuhan University, Zhuo built an equity trading strategy based on GARCH, sentiment analysis, and other inputs, in which she applied LSTM to score the impact of emotion-based factors. While at Changjiang Securities, Zhuo worked on options pricing and trading. She adopted a binomial tree model and MCMC to price options. Zhuo developed various derivative strategies for clients including short straddle, ratio spread, butterfly. She also implemented a decision tree to select effective signals that dominated ETF's price in different weeks and performed post-prune to avoid overfitting. During her employment at PWC, Zhuo assisted with the construction of an index system for credit rating with PCA and cluster analysis for carbon exchange clients. Zhuo enjoys traveling and cooking in her spare time.

Ru, Yihao

Oliver Ru graduated with a bachelor degree in science from Tongji University of China. During his junior year, he was an exchange student at Tunghai University in Taiwan where he achieved perfect scores in all courses. Before joining the Berkeley MFE program, Oliver completed the master of finance program at the University of California at San Diego. While attending UCSD, Oliver interned on an options trading desk at Huatai Securities in Shanghai. He has used Matlab to create a logistic regression models to predict the movement of the stock index using the implied volatility of stock index options. After graduation, he analyzed multi-factor strategies as an intern at AWM Global Advisors, a wealth management company in San Diego. Oliver also interned at ETF Global, an independent quantitative research company, where he used Python and machine learning to code a prediction model using traditional ARMA and GARCH and Kalman filter. Oliver joined the Berkeley MFE program to take his quantitative skills further and hopes to commence a career in quantitative research, derivative pricing or portfolio management.

Santra, Arijit



Arijit Santra earned his bachelor degree in electrical engineering from Jadavpur University and his MBA from the Indian Institute of Management in Calcutta. Arijit has always been keenly interested in mathematics and qualified for the Indian National Mathematical Olympiad three times in a row. During his graduate studies, Arijit developed a solid foundation in derivative pricing models, stochastic calculus and time series analysis. He worked on a derivative pricing paper where he analyzed the performance of Black-Scholes and Heston's stochastic volatility model in pricing index options. Arijit was also involved in a time series project which aimed at comparing the forecasting accuracy of various conditional volatility models. Before joining the Berkeley MFE program, Arijit worked as an analyst at Edelweiss Securities, where he developed pricing models and hedging strategies for exotic options and structured products. He also worked on credit risk models associated with corporate loans and the restructuring of distressed assets. Arijit holds the Udacity Machine Learning Engineer Nanodegree certified in which he designed an automated trading agent using reinforcement learning. Arijit enjoys trading equity options and in his spare time likes traveling and working out.

Satyavolu, Sai Nitish



Nitish Satyavolu received his bachelor and master degrees in electrical engineering from the Indian Institute of Technology in Kanpur. During his studies, Nitish undertook multiple projects in signal processing, computer vision, and machine learning, culminating in his thesis, where he proposed a novel adaptive equalization technique for enhancing the quality of in-car audio. Nitish has also done a research internship at Carnegie Mellon University, where he worked on challenging biometrics and pattern recognition problems like gender and ethnicity recognition from facial images. His research papers on computer vision and audio processing have been presented at leading academic conferences. After graduation, Nitish joined Cisco Systems as a software engineer where he developed device drivers for network switches. Nitish then joined Goldman Sachs as an analyst on their electronic trading team where his primary responsibilities included formulating and implementing risk controls for the equities trading platform. In his spare time, Nitish enjoys traveling, kayaking, and playing video games.

Shao, Weipeng



Weipeng Shao received his bachelor degree in pure and applied mathematics from Tsinghua University, where he gained a strong foundation in math, statistics, and programming. Weipeng interned as a quantitative analyst at China Finance Quant Technical Investment, where he investigated the predictive power of sentiment factors based on highly-correlated search engine data and designed algorithmic trading strategies to generate alpha strategies. Weipeng also interned as a quantitative analyst at Wealth Engine fintech, where he explored active asset allocation methods and constructed an improved portfolio management system using mathematical modeling and statistical methods. Before joining the Berkeley MFE program, Weipeng worked as a quantitative researcher at DeepX Capital, where he used C++ to write efficient code for a high-frequency trading framework. Weipeng also worked as a research assistant at the GEC Academy, where he collaborated with data science faculty at U.C. Berkeley and the Institute for Applied Computational Science at Harvard University. He was primarily responsible for overseeing online machine learning research projects and giving lab courses to undergraduate students. In his spare time, Weipeng enjoys snowboarding and swimming.

Sharow, Robert



Robert Sharow graduated from York University in 2018 with a Bachelor of Art, Honours in Applied Mathematics and Economics, Magna Cum Laude. Exposure to financial markets through a position of equity trader trainee at Toronto's proprietary trading firm, inspired Robert to tailor his degree to include stochastic processes, advanced probabilistic modeling, time-series analysis and more to provide a rigorous mathematical foundation for his MFE studies. His passion for optimization led him to participate in research projects focusing on implementation and performance evaluation of alternative models. Particularly, the implementation of Jump Diffusion models in option pricing, and general Phase Type distributions in non-linear settings. Robert had the opportunity to implement machine learning concepts in designing an algorithm, which assisted a company to increase their success rate in attaining government tenders by 28%. Through the MFE program, Robert is working at further hone his quantitative skill-set in order to pursue a career in quantitative research, trading or portfolio management.

Shen, Huijie



Huijie Shen received a dual bachelor degree in mathematics and economics, and clinical psychology and a minor in computer science from the University of California at San Diego. Before joining the Berkeley MFE program, Huijie interned as a financial analyst for a venture capital firm. She analyzed financial statement data to evaluate investment opportunities and track the performance of portfolio companies. Huijie has used data science skills to build prediction models. Last year, Huijie worked on the derivatives and securities desk at ZhongJun Capital, an asset management firm in Hangzhou, China. As the quantitative research analyst, Huijie created models for price discovery of convertible bonds, and to predict default probabilities for the companies in the data set. Utilizing machine learning techniques, Huijie researched the current state of the Chinese economy to facilitate asset allocation. In her leisure time, Huijie enjoys painting, reading, traveling, and soccer.

Shi, Meiqi



Meiqi Shi graduated with a bachelor degree in material chemistry from Peking University. While there, Meiqi worked on several quantitative projects, including evaluating fund performance with Kalman Filter optimized CAPM and forecasting SHCOMP Index return with macro variables. Meiqi also interned on the financial engineering team in Guotai Junan Securities, where she established a risk management and factor allocation system based on Barra risk models and developed an allocation strategy which adjusts factor exposure according to market sentiment. Having developed a passion for trading, Meiqi accepted an internship at Foresee Investment, where she applied machine learning algorithms to forecast short-term stock returns with self-designed features, and enhanced the portfolio performance with signals generated from the model. Before joining the Berkeley MFE program, Meiqi worked as a quantitative researcher at Trexquant investment developing various mid-frequency alphas for statistical arbitrage. Meiqi wrote algorithms to automatically generate, test and combine alphas from multiple data sources. In her spare time, Meiqi enjoys reading novels and working out. She is also interested in exploring new technologies.

Si, Chengyu



Cynthia Si earned her bachelor degree in statistics with a cluster in industrial engineering & operation research from University of California at Berkeley. During her undergraduate studies, Cynthia developed a solid theoretical and practical background in fields such as machine learning, deep learning, and big data analysis. Before joining the Berkeley MFE program, Cynthia interned as an investment analyst at Dacha Prime, a private equity company located in San Francisco. From this internship, she gained fundamental knowledge about industry research and investment. Later, Cynthia interned as a quantitative analyst in the finance group at Iluvatar CoreX, a Chinese high-tech company. During this time, she used Python to construct a multi-factor model with an indexing strategy for the Chinese stock market. Her model's returns outperformed the China Securities Index (CSI) 300 by 10%. Cynthia passed the CFA Level I exam and during her spare time enjoys traveling, working out, and playing the pipa and violin.

Suarez, Jorge



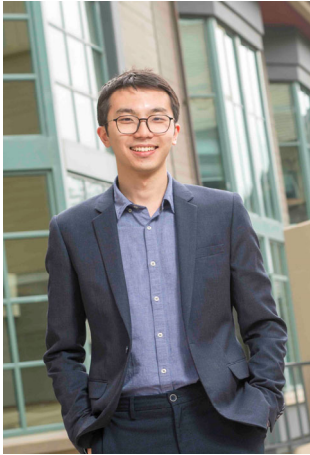
Jorge Suarez earned his bachelor degree in economics from Universidad del Pacifico in Peru and an MBA from the University of Toronto. Since graduation, Jorge has accumulated a rich working experience on the buy and sell-side. Before joining the Berkeley MFE program, Jorge worked on the emerging markets sales desk at Scotiabank, offering fixed income and foreign exchange products to institutional accounts in Latin America. Prior to Scotiabank, Jorge had a stint on the G10 rates trading desk at Ontario Teacher's Pension Plan, and before that, he was a senior rates and FX trader at BBVA Horizonte, a large pension fund in Peru. Jorge began his professional career working on the fixed-income desk at ING Mutual funds in Peru. Jorge loves to learn new programming languages, and for several years has consistently used his programming skills to build quantitative investment strategies and optimize daily tasks. Jorge passed the CFA Level I exam.

Sun, Chao



Chuck Sun graduated with bachelor degrees in applied mathematics and economics from the University of California at San Diego. Chuck interned as an investment banking summer analyst at MedDx Capital. There he used valuation models such as discounted cash flow to find potential M&A target companies. Chuck also interned at Element Capital where he assisted with leveraged buyout deals. Chuck also worked at XY Investments as a quantitative research analyst. There he designed programs to retrieve fundamental financial data of target companies and performed data cleansing. Chuck conducted research and build and tested factor-based models and regression models using skewness and kurtosis at a five-minute resolution of Chinese A-share stock prices, and fundamental factors in developing alpha strategies. In his spare time, Chuck enjoys traveling, working out and watching movies.

Sun, Dong



Dong Sun has a bachelor degree in mathematical finance from the University of Liverpool and a master degree in computational statistics and machine learning from the University College in London. During his studies, Dong acquired in-depth training in math, statistics, machine learning and finance. Before joining the Berkeley MFE program, Dong worked as a data scientist at State Street Global Exchange in Hangzhou. There he mainly focused on developing an investment portfolio analysis tool that effectively delivers insights using data science models. Dong later worked as an AI engineer for China Pacific Insurance Company, where adapted natural language processing systems to create an insurance policy robo-advisor. In addition to his data science experience, Dong also explored sell-side finance through his internship as a quantitative researcher at Northeast Securities in Shanghai, where he applied machine learning techniques like boosting trees and hidden Markov models to predict asset returns. His favorite sport is basketball and is a big fan of the San Antonio Spurs.

Tang, Chuandong



Chuandong Tang acquired a bachelor degree in statistics and a master degree in quantitative economics and finance from the University of Vienna. Chuandong was at the top of his master class and received merit-based scholarships for three consecutive years. During his studies, he gained extensive knowledge in time-series analysis and, as an undergrad, worked as a TA of a financial econometrics graduate course. During his master study, Chuandong was a group actuary intern at UNIQA, where he applied the Least Squares monte carlo method for interest rate modeling. In 2015, he accepted a position at Raiffeisen Bank, where he conducted quantitative non-retail credit portfolio analysis using indicators such as PD and LGD. He worked extensively with Python to implement automated analysis. Before joining the Berkeley MFE program, Chuandong worked as a senior quantitative associate in valuation and economics at PricewaterhouseCoopers Europe. While there, he focused on the valuation of exotic derivatives and bonds with embedded options, interest rate modeling and equity price forecasting using fundamental analysis. Chuandong represented Austria in the Middle European Mathematical Olympiad, and his team placed fourth among ten countries. Chuandong passed the CFA Level III exam and the CAIA I exam.

Tatarenko, Anastasiia



Anastasia Tatarenko obtained her bachelor degree in economics from the Higher School of Economics in Moscow. She then completed her master degree in applied economics and finance at the University of California at Santa Cruz. At Santa Cruz, Anastasia took Ph.D. courses in time series analysis and worked with abstract data types and algorithms on a project associated with the computer science department. Her undergraduate thesis described an econometric model for shadow banking's influence on the financial stability of developed countries. Driven by her interest in finance, Anastasia interned first at SPRING and then at Dream Team Investments, both located in Moscow. Her last internship was in the analytics department of RosBusinessConsulting where she analyzed the retail industry. To further develop her math and programming skills for the Haas MFE program, Anastasia enrolled in WorldQuant University and completed quant model development projects in R and Python. She also completed several machine learning and artificial intelligence specializations from Coursera. Anastasia passed the CFA Level I exam. She enjoys ballroom dancing, skating, and foreign languages.

Tomar, Varun



Varun Tomar obtained his bachelor and master degrees in civil engineering from the Indian Institute of Technology in Kanpur. There he established a strong background in game theory and the ability to apply mathematics and physics to real-world problems. Before joining the Berkeley MFE program, Varun worked as model validation quant at Credit Suisse, where he proactively challenged to the quantitative models used for counterparty risk, market risk, and economic risk capital calculations. Varun created tools and enhanced the testing framework for model validation. In his spare time, Varun enjoys tennis, surfing, horse riding, traveling, and tango.

Tyagi, Yashoraj



Yashoraj Tyagi completed his bachelor degree in electronics and instrumentation engineering with honors from BITS Pilani in India. After graduation, Yashoraj joined as a data scientist at CASHe, a leading Indian fintech in the domain of alternative lending. After a few months, Yashoraj progressed to the position of lead data scientist. He was instrumental in developing an automated machine learning system for credit scoring individuals based on behavioral data. The system has so far been used to profile 1.5 million individuals and used for loan disbursements worth over \$90 million. Yashoraj was also a visiting scholar at the Haas School, where he worked with a research team developing a globally scalable AI credit scoring system for profiling individuals based on limited social and mobile data. Being passionate about the broader applications of data science, Yashoraj also volunteered with SafeCity, an Indian NGO using data science techniques to mitigate crimes against women. Apart from work, Yashoraj loves hiking, listening to music and reading science fiction.

Wang, April (Yuxiao)



April Wang graduated from the University of Toronto with a bachelor degree in engineering science, specializing in engineering mathematics, statistics, and finance. April's capstone project required her to develop and construct an index tracking portfolio to outperform an existing ETF. For her undergraduate thesis, April investigated the effect of institutional trading and built a systematic trading model through stochastic and dynamic programming. Before joining the Berkeley MFE program, April worked as an analyst at TD Asset Management, where she was responsible for the daily management of client investment portfolios. April accumulated significant experience through her work as a private equity analyst at Verdo Capital, a risk analyst at TD Bank's enterprise risk management department, and as an investment management analyst at Hydro One. During her spare time, April loves to play the piano and work on visual art projects. She also enjoys international traveling and journaling.

Wang, Yili



Yili Wang graduated with bachelor degrees in statistics and economics from the University of California at Davis. Before joining the Berkeley MFE program, Yili worked as a quantitative analyst at Meridian Global, where she performed scenario analysis and stress tests to assess the risk of a \$10 million options-heavy portfolio. For the project, Yili specifically replicated the Chinese stock market turbulence of 2015. During her internship, Yili researched the effectiveness of a strategy that uses index futures to hedge a basket of single name stock options and simulated portfolio performance with this strategy in various market environments using the Black-Scholes model. Yili also interned as a quantitative analyst at Athena Capital Research, where she revisited the Fama French Three-Factor model and used python to constructed artificial neural networks on Chinese stocks in CSI 300. While pursuing her degree, Yili participated in the global wealth program at Morgan Stanley and conducted case studies on GoPro, LinkedIn, and Disney based on fundamental analysis. Every week she would pitch new stock ideas to senior managers. Yili recently passed the CFA Level I exam. In her leisure time, Yili enjoys running, traveling, and hiking.

Wang, Zhifeng



Zhifeng Wang graduated with bachelor degrees with honor in mathematics and mathematical economics analysis from Rice University. During his undergraduate years, Zhifeng interned at Bridgeway Capital in Houston. He was responsible for monitoring transaction costs of the mutual fund and improving the fund performance by providing suggestions on stock selection and trading behavior from a cost control perspective. After graduation, Zhifeng interned as a research assistant in the economics department in the Institute of International Finance in Washington, DC. During the internship, he researched various aspects of the Chinese economy such as foreign exchange debt, current accounts imbalance and bank deleveraging. At IIF, Zhifeng co-authored outlook reports and distributed them to subscribers. He also constructed a live financial condition index for internal analysis of government economic policies. Zhifeng passed the CFA Level II exam. In his spare time, Zhifeng loves skiing, photography, and hiking in national parks.

Wei, Zirui



Zirui Wei graduated with a bachelor degree in finance and minor in statistics from Wuhan University. During his most remarkable internship, Zirui worked in the operational group at Ricequant, a fintech company in China. Zirui fixed bugs and added new technical indicators for an opensource backtesting project and accomplished roadshows for a mutual fund and a university. Zirui also built tools to test the effectiveness of sentiment factors in China's equity market and update sentiment and online-retailer data to a server automatically. In 2017, Zirui created a platform to forecast the distribution of spot prices and optimize the combination of derivatives to strike a balance between covering the anticipated risk and saving the hedging cost. This platform won second place in the Citi Innovative Financial Application contest. In his spare time, Zirui Wei enjoys swimming, reading classic literature, and traveling.

Wu, Chongrui



Chongrui Wu graduated with a bachelor degree in financial engineering from Wuhan University. Upon graduation, Chongrui interned in the investment research department at FT Asset Management. While there, Chongrui concentrated on replicating the market index and constructing pairs trading strategies. He also applied his scientific research achievements into practice by deploying a dynamic stock price model with a fuzzy control system to detect and surveil activity of large volume market participants to generate trading signals. During college, Chongrui interned in two departments at CITIC-Prudential. When deployed on the marketing communication and business support team, he frequently communicated with mutual fund managers and acquired a comprehensive knowledge of macroeconomic trends, distilling his observations into weekly reports to clients. On the quantitative investment team, Chongrui performed weekly analysis utilizing the Brinson Attribution model. He improved the Sharpe ratio of CITIC's original CTA strategy 30% by adding a reversing approach based on option networks theory. Chongrui enjoys reading and swimming in his spare time.

Wu, Kun (Shirley)



Shirley Wu graduated with a bachelor degree in economics from Nanjing University. Her undergraduate program enabled her to practice programmatic implementation of financial engineering techniques, such as statistical arbitrage mean reversion models written in Matlab and derivative pricing through monte carlo simulation written in C++. During her internship at Tianfeng Securities, Shirley evaluated China's fintech market. This project clarified in her mind the enormous opportunity to use AI to automate repetitive financial work. After graduation, Shirley joined Sky Data to research ML-driven quantitative strategies. On one project dubbed Alpha, she used Python and long short-term memory to analyze the relationship between self-defined factors and stock market returns. On another project, Shirley algorithmically described price trends and order-book changes to automate traders' strategies. Shirley further quantized factors of interest to traders and equipped the automatic function with an AI-powered "brain" based on XG-Boost. She also worked as a trader at Soyi Tech, optimizing market making strategies, managing position risks, implementing arbitrage functions and attempting reinforcement learning in trade execution of cryptocurrency pairs. Shirley passed the CFA Level I exam. In her spare time, she enjoys music, drama, and leather crafts.

Wu, Tianyao



Tianyao Wu graduated with a bachelor degree in mathematics and economics from Nanyang Technological University. Upon graduation, Tianyao joined Galway Group, an energy advisory firm focusing on gas and LNG. There he developed various valuation models for energy products. After two years, Tianyao joined Danone as a global resins market analyst. During this time, he created accurate supply and demand models for forecasting commodity prices. Tianyao also applied time series analysis and regression analysis to price forecasting, thereby helping the team achieve consistently high performance against the market. To hedge the portfolio, Tianyao designed benchmarks through regression analysis against futures market data. Having focused on the commodity market for several years, Tianyao has developed insights into commodities and futures trading.

Xiu, Yuan



Yuan Xiu graduated from the University of California at Berkeley with a simultaneous degree in applied mathematics and business administration. During her undergraduate studies, Yuan developed a solid theoretical and practical background in the quantitative and financial fields. Before joining the Berkeley MFE program, Yuan interned in the finance department of Schneider Electric in Beijing, where she worked to improve the revenue forecasting model. Yuan has also worked as an investment analyst at a YouLand Inc, a real estate financial technology company in San Francisco. At YouLand, Yuan specialized in the valuation of real estate properties in the Bay Area and supported the equity fundraising process of the company. Yuan has evaluated over \$500M worth of real estate and has successfully originated greater than \$150M of loans. Yuan has completed multiple online machine learning courses. Yuan passed the CFA Level I exam. Aside from work and study, Yuan enjoys playing golf, playing the piano, and shopping.

Yadav, Trilok Kumar



Trilok Yadav earned a bachelor degree in electrical engineering from the Indian Institute of Technology in Delhi. Upon graduation, Trilok worked at Deutsche Bank and Samsung Research in varied roles. At Deutsche Bank Trilok worked on a fixed income and currencies desk, facilitating the CVA & FVA portfolio management and hedging credit and counterparty risk. Trilok used Python, Matlab, and SQL on projects such as default curves creation, marginal CVA & FVA pricing and path dependent monte carlo simulations for interest rates and FX spots. Trilok also modeled wrong way risk, margin period of risk, and ratings based threshold calculations to hedge against client default. Trilok worked on stress testing and model validation as mandated by the European Central Bank. He has built visualization tools to help traders with position hedging and has created neural networks written in C++. Trilok passed the CFA Level III exam. His interests include cricket and hiking, and he loves riding motorcycles. Trilok has ridden his motorcycles more than 50,000 km throughout India and recently completed a 7,000kms expedition in the Great Himalayas.

Yang, Suki



Suki Yang completed her bachelor degree in finance with honors and a concentration in financial engineering from Wuhan University. During college, Suki developed solid skills in applied mathematics, statistics, computer science and finance through rigorous coursework, internships, projects, and research. After graduating, Suki interned at Didi Chuxing, a Chinese ride sharing, AI and autonomous technology company, where she researched and implemented deep learning techniques to improve prediction accuracy for efficient customer response. There, Suki worked on different machine learning algorithms with around dozens of features. She interned at ForwardLane in NYC, where she developed a system for comparing multi-feature similarities among ETFs using hierarchical clustering. Suki also improved forecasting accuracy of portfolio returns by applying Kalman Filtering. Most recently, Suki worked as a quantitative researcher at DeepX Capital, where she was responsible for trading strategies and portfolio optimization, including generating and testing trading signals based on machine learning. In her free time, Suki enjoys traveling, board games, skiing, working out and cooking.

Zeng, Qingtong



Qingtong Zeng received bachelor degrees in finance, applied mathematics, neuroscience, and economics with honors from the University of Washington. One of Qingtong's projects used quantitative methods to investigate the impact of sharing economy on the traditional house renting market. He also participated in a research project on conditional path sampling of metastable states in the Washington Experimental Mathematics Lab. Qingtong interned at a few commercial banks in China, where he worked on several investment projects and wrote research papers. Qingtong interned at the Baoyin Consumer Finance company where developed their first internet loan product. Qingtong excels at learning new concepts. He finished over eighty courses in three and a half years at UW, while also tutoring other students in math, physics, chemistry, economics, biology, computer science, and statistics. Qingtong is highly proficient with R, Matlab, C++, Python, and JAVA. Qingtong speaks English, Spanish, German, and Chinese. In his spare time, Qingtong enjoys skateboarding and parkour.

Zhang, Hanwen



Emmie Zhang received her bachelor degree from Carnegie Mellon University with double majors in mathematical science and statistics. She also completed a series of programming courses and thus developed rigorous quantitative skills in all areas of math, statistics, and computer science. Upon graduation, Emmie joined Deutsche Bank through its graduate rotational program and had opportunities to work on risk management, securities lending, and prime brokerage teams. Upon program completion, Emmie joined the corporate risk team assisting in multiple CCAR initiatives such as RWA projection regressed from market/economy forecasts. Emmie also helped automate the process to backtest monte carlo simulated VaR, and implemented a more efficient workflow for risk commentary. Emmie later transferred to the asset management division working as an investment risk associate. Her responsibility included daily oversight of mutual fund, ETF and SMA portfolio analysis, attributing a dynamic quantitative value to management styles and various risk factors. Emmie also assisted in the design and implementation of a liquidity risk framework, looking at factors such as expected/stressed redemption, credit facility usage, collateral segregation, and surplus to measure fund liquidity and mitigate dilution risk. Emmie passed the CFA Level III exam. In her spare time, she enjoys dancing, musical performances and traveling.

Zhang, Wenjing



Wenjing Zhang graduated from National University of Singapore with a bachelor degree in quantitative finance and double major in statistics. Her honors project focused on the convolution method in options pricing. Applying option market data calibration, Wenjing evaluated the numerical results of accuracy, speed, and convergence under various exponential Levy models. Upon graduation, Wenjing joined the HSBC Management Associate program, where she rotated across the operations, trustee services, client services, digital and data team, sales and business development departments. This experience gave Wenjing a broad perspective on the various technologies and disciplines required within the bank. During her rotation, Wenjing used her programming skills to refine several operational workflow projects to improve efficiency across multiple teams. Wenjing joined FinBook as a financial engineer, where she worked extensively with her team to develop a decentralized platform which mitigated risk associated with issuance, trading, and settlement of tokenized crypto derivative transactions through blockchain technologies. In her spare time, Wenjing enjoys traveling, hiking and watching movies.

Zhang, Xianci



Xianci Zhang obtained his bachelor degree in financial engineering from Nanjing University. Before joining the Berkeley MFE program, Xianci worked as a data analyst at PwC. At PwC, Xianci conducted data wrangling and cleaning on twelve thousand financial statements and fitted linear regression models with regularizations. Xianci then accepted an analyst position on a trading desk at Morgan Stanley, where he conducted preliminary investment analysis to create a stock data subset and then conducted applied machine learning algorithms (random forests, principal component analysis, logistic regression) on that data. Xianci has also utilized K-Means clustering algorithms to identify patterns and outliers for corporate financial anomaly detection. Besides English and Chinese, Xianci also speaks conversational German.

Zhang, Xuhui



Xuhui Zhang loves math, and in 2011 won a gold medal in a Chinese girls' Mathematical Olympiad. She went on to obtain her bachelor degree in finance and a bachelor degree in statistics from Peking University. During college, Xuhui interned on an entrepreneurial team at InsureTech and successfully secured an angel investment of \$1 million from Legend Capital. Before joining the Berkeley MFE program, Xuhui interned as a quantitative analyst at Blackwing Asset Management, then joined Taikang as an actuary. Xuhui was successful in this role and promoted to manager within a year. Xuhui continues to challenge herself through her professional work experience and improves her financial modeling and programming skills with every project. Xuhui passed the CFA Level I and the FRM II exams.

Zhang, Yiwei



Yiwei Zhang received a bachelor degree in electronic engineering with a double major in business administration from Tsinghua University. This academic experience laid a solid foundation in math, finance, and programming for her eventual career. Yiwei worked as a research assistant at the university where she researched the relationship between market participants' behavior and asset prices. To prove the feasibility of the project, Yiwei used R to adjust a random forest model based on prospect theory to forecast the Chinese A-share market. On a facial recognition project, Yiwei demonstrated her proficiency with machine learning by using Python to code a convolutional neural network. During her internship at Morgan Stanley, Yiwei helped to construct the bank's software development life cycle platform. She also received training on the subjects of private equity, venture capital, and risk management. As a data analyst, Yiwei also interned at SigAlpha Capital, where she used Python and SQL to perform data mining and contribute to the development of the firm's strategies for trading commodities and equities. Besides work, Yiwei enjoys music and has played pipa at international festivals.

Zhao, Jiaxin

Jiaxin Zhao was among the top 1% of her class when she graduated with her bachelor degree in automation from the Beijing Institute of Technology. Jiaxin then joined the Ph.D. program in control science and engineering at Tsinghua University; she will obtain her Ph.D. in June 2019. Jiaxin's research involved multidisciplinary modeling, numerical analysis, and data mining for complex simulation processes, such as aircraft dynamics, mechanical structures, and robotics kinetics. Her doctoral thesis describes a co-simulation mechanism and algorithms for engineering systems. During her studies, Jiaxin worked as a visiting student researcher in Farhat Research Group. She also spent an academic year at Stanford University, working on adaptive time-stepping co-simulation algorithms for partitioned differential systems. Jiaxin has produced and published five research papers to date and presented to conferences on several occasions. Before joining the Berkeley MFE, Jiaxin interned as a quantitative investment researcher in CITIC Securities, where she developed an improved evaluation for multifactor models and tracked its validity for investment portfolio. She also deepened her financial industry knowledge by investigating AI and robotics investment trends and compiling technology, media, and telecom sector reports for the InnoAngel Fund, a well-known angel capital fund in China. In her spare time, Jiaxin enjoys swimming and playing tennis.

Zhao, Peisen

Steven Zhao graduated with a bachelor degree in engineering and a master degree in industrial engineering from the University of Toronto. During his studies, Steven has worked on a variety of projects including portfolio optimization implementing various trading strategies that match client risk preferences. Steven has performed monte carlo simulations to predict the one-year loss expectancy of a bond portfolio comprised of different credit ratings. For his master thesis, Steven developed a novel method that solves the Markov Decision process at a higher computational efficiency. Before joining the Berkeley MFE program, Steven worked as an analyst at Kaifeng Investment, where he employed statistical methods and machine learning algorithms to identifying significant macroeconomic factors that have a substantial impact on major stock indices. At the Bank of East Asia, Steven was responsible for analyzing profit and loss on the daily sales of financial products and forecasting the spread of LIBOR-federal funds rates using regression analysis. During his free time, Steven enjoys traveling and hiking. He recently climbed to the 2155 meters peak of Mount Hua in one night.

Zhao, Xinpei

Xinpei Zhao graduated from Tsinghua University with a bachelor degree in mathematics and a minor in economics. After graduation, Xinpei joined CICC as a quantitative analyst intern in the wealth management group, where she constructed a factor model framework, explored and integrated strong sentiment factors and designed a market monitor for internal analysis. During her junior year, Xinpei interned at Wells Fargo as a quantitative analyst in the capital market risk division, where she implemented and validated derivative pricing models for CCAR stress testing. She also assisted Professor Michael Powers of Tsinghua University on a project modeling P2P lending credit risk. For that project, Xinpei applied LASSO, random forest and GBDT in feature selection and Mlogistic and Cox Models to model customer risk variables. Aside from work, Xinpei enjoys singing, Chinese calligraphy and playing badminton.

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