ZIHAN (PETE) LIU

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EDUCATION

NEW YORK UNIVERSITY New York, NY
The Courant Institute of Mathematical Sciences
MS in Mathematics in Finance (expected - Dec. 2020)

- ***Current Coursework:*** Financial computing in Java, dynamic asset pricing modelling, volatility modelling, Black-Litterman modelling, interest-based derivatives, Black-Scholes PDEs, Feynman-Kac and Cameron-Martin formulas
- ***Future Coursework:*** Data science in quantitative finance (various optimization methods and high-dimensional supervised-learning problems in finance), interest rate related derivatives in bonds, swaps, flow options and other structured products

AUSTRALIAN NATIONAL UNIVERSITY Canberra, Australia
BS in Mathematics & BS in Finance (Feb. 2015 - Dec. 2018)

- ***Coursework:*** Advanced Derivatives Pricing Theories and Models, Continuous Time Finance, Corporate Finance, Investment, Stochastic Processes, Probability Theory and Modelling, Real Analysis, Topology and Hilbert Spaces, Statistical Learning, Numerical Analysis

UNIVERSITY OF SOUTHERN CALIFORNIA Los Angeles, CA
Global Exchange Program (Aug. 2017 - Dec. 2017)

- ***Coursework:*** Financial Valuation and Analysis, Applied Finance in Fixed Income Securities

EXPERIENCE

EARNEST EDUCATION Canberra, Australia
Academic Tutor (Dec. 2017 - Dec. 2018)

- Prepared lecture style review sessions for first-year finance and mathematics classes and provided 1-1 academic tutoring catered to needs of 5-10 first-year students
- Designed mathematical and finance problem sets and revision materials for investment, derivative, and calculus lectures

CHINA MERCHANTS BANK Guangzhou, China
Winter Internship at Personal Retail Service Department (Dec. 2015 - Feb. 2016)

- Promoted sales of credit card to clients and streamlined transaction process for clients
- Maintained client relationship between banks and high net-worth individuals through working with senior financial advisor to develop customized investment plans and close monitor of the investment portfolio to achieve yields maximization to clients as well as risk protection

PROJECTS

AUSTRALIAN NATIONAL UNIVERSITY Canberra, Australia
High Dimensional Density Estimation with Sparse Grids (Feb. 2018 - Jul. 2018)

- Studied and researched on the sparse grids algorithm to explore the possibilities of its application in high dimensional density estimation calculation (speed and accuracy trade-off)
- Implemented image recognition to newly augmented model and gained a better (7%) accuracy while maintaining the same magnitude of time consumption

Gaming Bot in Kalaha (Apr. 2016 - Jun. 2016)

- Researched and implemented alpha-beta pruning algorithm with a creative heuristic function (gaming strategies that depend on the phases of the game) in Haskell to construct a gaming bot to compete among 500 gaming bots with potentially different strategies
- Ranked 37th in the final try-out, which includes 10 lecturer-created bots and 10 tutor-created bots and gained deeper understanding of data structures and algorithmic optimization

COMPUTER SKILLS/OTHER

***Programming Languages*:** Python (Proficient), R (Intermediate), Haskell (Intermediate), Java (Basic)
Other Software: Microsoft Office, MATLAB, Bloomberg, CapIQ
Languages: Mandarin Chinese (Native), English (Fluent) and Cantonese (Fluent)