RUNKUN (VINCENT) XIE

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EDUCATION

Columbia University, New York, NY — Dec 2019
- *MA in Mathematics of Finance*, GPA: 4.00/4.33
- Coursework: Stochastic Calculus, Numerical Analysis, Non-linear Option Pricing, Time-Series Modeling; Deep Learning, Signal Processing, Algorithm Analysis; Derivatives Modeling, Fixed Income Portfolio, Financial Risk Management
- Awards & Associations: Davis Fellowship; Quantitative Analyst at Columbia Quant Group

Central University of Finance and Economics (one of China's best finance-oriented university), Beijing — Jun 2018
- *BE in Financial Engineering*, GPA: 3.87/4.00, top 10%
- Coursework: Differential Equations, Real Analysis; C++, Data Structure, Database; Finance, Econometrics, Investment

University of Michigan, Ann Arbor, MI — Aug 2016
- *Summer Program in Quantitative Methods of Social Research*, GPA: 4.00/4.00
- Coursework: Advanced Time Series Analysis, Simultaneous Equation Models, Regression Analysis

EXPERIENCES

Wisdom Capital Asset Management — Nov 2019 – Present
Quantitative Analyst Intern — New York, NY
- Data Processing: processed daily price data of 31 underlying assets – including indexes, commodities, treasuries, and foreign exchange rates – and calculated technical indicators using Python
- Quant Analytics: built and maintained VBA models for the auto-calculation of multi-days return distribution, return dispersion, and conditional return distribution for the identification of mispriced short-dated options

Huatai Securities (China's top 5 investment bank) — Jun 2019 – Aug 2019
Quantitative Research Intern — Beijing
- Strategy Implementation: implemented cyclical asset allocation strategy using Python, extracted cyclical information and synthesized signals by Discrete Fourier Transform and SUMPLE algorithm (strategy id on Wind Terminal: MACRO.WI)
- Strategy Development: researched on papers, refined and modified existing strategy independently (investment timing, weight adjustment, and risk control), and improved its Sharpe Ratio from 1.44 to 1.86

China Galaxy Securities — Feb 2018 – Jun 2018
Quantitative Developer Intern — Beijing
- Quant Development: built matrix-based backtest system for alpha exploration and multi-factor strategy using Python
- Alpha Research: Interacted with SQL Database, tested short- and medium-term alphas in "101 Formulaic Alphas" project
- Strategy Implementation: implemented Barra model, backtested multi-factor strategies, and achieved 1.39 Sharpe Ratio
- Quant Modeling: selected descriptors by information coefficient, generated factors using principle component analysis, forecasted factor return and covariance by GARCH model, and optimized portfolio weights by Convex Optimization

China International Capital Corp (China's top 2 investment bank) — Oct 2017 – Jan 2018
Quantitative Analyst Intern — Beijing
- Quant Modeling: developed VBA programs to automatically conduct attribution analysis by Brinson Model, analyzed the performance sustainability of hedge funds by Transition Matrix, and risk attribution by Barra Model using Python
- Quant Analytics: tracked holdings and P&L of 47 hedge funds, evaluated risks and performances through various metrics based on major asset classes invested using VBA, and generated weekly reports for clients

PROJECTS

Neural Networks and Deep Learning, *Columbia University* — Oct 2019 – Dec 2019
- Course Overview: built neural network structure, optimization and regularization algorithms from scratch, applied convolutional and recurrent neural networks to image classification and machine translation problems
- Course Project: built a CNN to recognize multi-digit numbers directly from satellite imagery, and achieve 86.02% accuracy

Nonlinear Option Pricing, *Columbia University* — Feb 2019 – May 2019
- Course Overview: applied non-linear PDE model to tackle derivative pricing and evaluation problems
- Course Projects: American option pricing using Longstaff-Schwartz and TVR methods, portfolio optimization based on HJB equation and Backward SDE, and implied volatility estimation by Stochastic Local Volatility model

SKILLS & INTERESTS

- **Programming & Tools**: Proficient in **Python**, **MATLAB**, **VBA**; Significant Experience with **C/C++**, **SQL**; Git, Bash; Financial Terminals: Bloomberg, Wind; Microsoft: Excel, Word, PowerPoint
- **Certificates & Associations**: CFA Level II, FRM Level I; member of GARP, IAQF
- **Interests**: Tennis, Guitar