GENG (ALEX) YAN

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EDUCATION

NEW YORK UNIVERSITY New York, NY
The Courant Institute of Mathematical Sciences GPA: 3.9/4.0
MS in Mathematics in Finance (expected – January 2020)

- ***Coursework:*** Black-Scholes, Greeks, derivatives pricing, measure change, Monte Carlo, PCA, curve building, HJB equation, local volatility, volatility smile, Hull-White model, Heston model

NANJING UNIVERSITY Nanjing, Jiangsu
BS in Mathematics (2014-2018) GPA: 4.5/5.0

- ***Coursework:*** Analysis (complex, real and functional), algebra and representation theory, ODE, PDE, topology, differential geometry, statistics, numerical analysis, data structures and algorithms
- ***Awards:*** First Prize in Chinese Mathematical Olympiad in Senior

EXPERIENCE

BITMART New York, NY
Quant Intern (Sept. 2019 – Present)

- Built a whole market-making system for crypto-currency exchanges, provided market liquidity
- Developed a trading strategy that have 120% annual return and 2.41 Sharpe ratio in Bitcoin market, and 31% average return in a basket of 30 stocks in China stock market

HIFI TECHNOLOGY New York, NY
Financial Engineer Intern (May 2019 – Aug. 2019)

- Applied modern time series models like ARIMA, seasonal decompose to predict users' next year income, and the overall back-tested accuracy achieved 76%
- Trained RNN and LSTM for time series prediction, and the back-tested accuracy reached 79%
- Built an automatic system to select useful part of data, the best model and parameters

CHINA ORIENT ASSET MANAGEMENT CO. Nanjing, Jiangsu
Financial Analyst Intern (July 2017 – Aug. 2017)

- Manipulated company's data to simulate optimization process of capital allocation
- Applied empirical statistic models to give confidence intervals of market valuation using R
- Allocated 780 million liabilities by acquisition of big collateral debts, and obtained about 1 billion net profits after revaluing those collaterals

PROJECTS

NEW YORK UNIVERSITY New York, NY
Derivatives Pricing and Model Fitting (Java & Python)

- Built generic Monte Carlo pricing framework for European, Asian options and other exotics, and improved this framework by using Middleware, OpenCL and multi-threading
- Applied importance sampling and other techniques to significantly reduce the variance
- Priced barrier options using trinomial tree and finite-difference scheme relatively
- Calibrated SABR model with FX spot and interest rates curves using market convention

NANJING UNIVERSITY Nanjing, Jiangsu
Machinery Fault Detection for Imbalanced Datasets based on Deep Learning (Python)

- Initiated idea of using Convolution Neural Networks to extract features and EasyEnsemble.M to train imbalanced datasets
- Trained data to classify them into three different classes and compared with several algorithms
- Designed experiment to show its superiority for imbalanced datasets, and the accuracy reached 99.85% and 97.14% in bi-classification and multi-classification

COMPUTER SKILLS/OTHER

Programming Skills: C++, Java, Python, Tensorflow, SQL, R, MATLAB, LaTeX
Programming Awards: National First Prize in National Olympiad in Informatics in Provinces (NOIP)