Yupeng Lu

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SKILLS AND CREDENTIALS

Programming: Python, Pytorch, Docker, Django, C, C++, R, SQL, LaTeX, MATLAB, Julia

Mathematics: Computational Method, Stochastic Calculus, Statistics, Probability, Linear Algebra, ODE&PDE, Calculus

Certifications: Bloomberg Market Concepts(BMC)

EDUCATION

M.S. Mathematical Finance & Financial Technology [GPA 3.98, $1,5000 Scholarship] Expected December 2022
Boston University, Questrom School of Business Boston, MA
Coursework: Coding & Math(Python, SQL), Statistics(R), Programming in Mathematical Finance(Python, C++), Stochastic Methods in Asset Pricing, Finance, Advanced Machine Learning(Python), Fixed Income Securities(Python), Computational Methods(Python), Neural Network & Deep Learning(Python, Docker, Linux)

B.A. Physics [GPA 3.84, $2500, $4000 Scholarships] August 2019 - August 2021
Ohio State University Columbus, OH
Coursework: ODE & PDE, Computational Physics(C++, Linux), Analytical Mechanics(Python), Quantum Mechanics, Mechanics 1&2(MATLAB), Python Intro, Engineering(MATLAB, Excel), Physics Lab(MATLAB), Interest Theory, Microeconomics, Macroeconomics

B.E. Engineering [GPA 3.65, $200, $200 Scholarships, Member of the Student Union] September 2017 - June 2019
Beijing University of Technology Beijing, China
Coursework: Calculus 1&2, Probability & Statistics, Linear Algebra, C Programming, Physics 1&2, Thermodynamics, Hydromechanics, Engineering Mechanics, Mechanical Engineering, Machine Design

EXPERIENCE

Online Volunteer Software Engineer Intern 5-10 hours per week, plan to start at 2022 summer
The City Tutors Remote

- Work with software development team in The City Tutors to improve the company's web development.
- Use Django, MySQL, designing webs for tutors to apply for relevant activities.

Data Cleansing Intern June 2021 - Augusts 2021
Bank of China Insurance, Actuarial Department Beijing, China

- Used SQL to extract the company's products in categories and exported data in Excel.
- Used GLM model to calculate the payout ratio and adjust the risk factors of the existing model to price the products.

Investment Research Intern October 2020 - February 2021
China Asset Management Co., Ltd. Beijing, China

- Collected stock data from the China A-share market and built ARIMA to predict future 100 stocks' prices.
- Used LSTM and Neural Networks to train data, tested the models and compiled reports of results.

Pricing Strategy Research Intern May 2020 - August 2020
Everbright Securities Co., Ltd. Beijing, China

- Conducted a research project on convertible bond pricing and applied Monte Carlo simulation to value the bonds.
- Evaluated model using ANOVA, Sensitivity analysis and Cox-Ross-Rubinstein options pricing model.

PROJECTS

Laboratory Assistant June 2018 - September 2018
Beijing Friendship Hospital, Capital Medical University Beijing, China

- Supported the collection of data for a study of neutron and boride treatment on tumors.
- Conducted regressions using MATLAB to find the relation between different factors and effects.

Multifactor Modeling Investments October 2021 - December 2021
Boston University Boston, MA

- Collected data from Bloomberg terminal, processed and cleaned data. Used WLS, IC test, monotonicity test and multicollinearity test to filter factors. Used OLS and ARIMA to get predicted betas.
- Optimized portfolio returns within limited risks by assigning weights using Lagrange multiplier.

2022 IAQF Competition January 2022 - February 2022
Boston University Boston, MA

- Apply Hidden Markov model, Neural Network to predict the market states(bull, bear, static) using Russell 3000.
- Test models and construct an investment strategy, compared returns with just buy and hold in 3 years.

ADDITIONAL INFORMATION

Languages: Mandarin, English(GRE 330)
Interests: Badminton, Working out, Video Games, Hiking, TED Translator, Volunteer(EXPO 2019, LOL 2018 Worlds, etc.)