**Yupeng Lu**

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**SKILLS AND CREDENTIALS**

**Programming**:Python, Django, Docker, SQL, C, C++, C#, LaTeX

**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 BusinessBoston, 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](about:blank)(Python), Quantum [Mechanics](about:blank), 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**

**Software Engineer Intern**  March 2022 - Present

The City Tutors Remote

* Work with the software development team in The City Tutors to improve the company’s web development.
* Use Django, sqlite3, designing webs for tutors’ training, application and matching.

**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 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**

**Large Dataset Manipulation** April 2022- Present

Boston University Boston, MA

* Collected cryptocurrencies trading information from Binance, clean data and stored as a database
* Manipulate the database using SQL, and Spark inside the Docker container.
* Implement analysis using machine learning for price trend predictions

**Multifactor Modeling Investments** October 2021 - December 2021

Boston University Boston, MA

* Collected data from Bloomberg terminal, and 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 the 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.