WANCHEN ZHANG

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EDUCATION

Boston University, Questrom School of Business — Boston, MA

M.S. Mathematical Finance & Financial Technology (Quantitative Analytics Track) — Expected January 2022

- Activities and Societies: Mathematical Finance Club Associate
- Coursework: Stochastic Calculus, Computational Methods, C++, Fintech Programming and Parallel Computing, Advanced Machine Learning and Natural Language Processing

University of Minnesota, Twin Cities — Minneapolis, MN

B.A. Mathematics, Minor in Statistics [GPA:3.94] — May 2020

- Merit award: Dean's List, 2019-2020 Scholarship of School of Mathematics
- Activities and Societies: Phi Beta Kappa Honor Society member, Teaching Assistant for College Algebra (Fall 2019)
- Coursework: Multivariable Calculus, Linear Algebra, OOP, Numerical Analysis, ODE, Econometrics, Time Series Analysis, Statistical Inference, Machine Learning, Stochastic Processes, Probability Theory, Advanced Algorithms and Data Structures

PROFESSIONAL EXPERIENCE

Correlation One, Data Science for All fellowship program — Remote, US

Data Scientist Fellow — Sep 2021 – Oct 2021

- Selected to participate in a 7-week rigorous data science training program sponsored by Citadel, Jane Street, Point72 etc., the acceptance rate is less than 5%

Charles River Development, A State Street Company — Boston, MA

Product Specialist Intern — June 2021 – Aug 2021

- Supported Fixed Income trading team, gathered product requirements from investment management companies, understand their business needs and drafted feature specification document
- Worked closely with Engineering team to develop New Issue Monitor for Municipal bonds to the existing Order and Execution Management System (OEMS)
- Designed the ETL pipeline for Municipal bonds, used Postman API to retrieve JSON format data from IPREO
- Maintained database, utilized SQL to validate the data feed to the relational database (over hundreds of tables and millions of records)

PROJECTS AND RESEARCH EXPERIENCE

Case Study: Determine whether or not verifying income source is significant in a P2P lending company — Sep 2021

- Used the dataset from LendingClub, which contains all loans issued from 2007 - 2012 along with their current loan status (fully paid or charged off)
- Performed EDA and use contingency table to examine the pairwise relationship between loan status and other variables
- Built Linear Regression and Logistic Regression to examine whether verifying income source is important (Hypothesis testing)
- Assessing classifier performance using AUC and F-1 score

University of Minnesota, Twin Cities — Minneapolis, MN

Machine Learning Researcher — March 2020 – May 2020

- Built Logistic Regression, SVM and multivariate gaussian classifier to train Boston Housing dataset (in Scikit-Learn)
- Adopted PCA to reduce the dimensions of the Digits dataset before performing classification, the original dimension is 64, the first 21 principal components preserve 90% of the variance, and the first 41 principal components preserves 99%.
- Performed cross-validation to the result, calculated the overall mean error rate and standard deviation over 10 folds, the mean accuracy is 97%

University of Minnesota, Twin Cities — Minneapolis, MN

Quantitative Researcher, Bloomberg Trading Challenge, Mean-Variance Portfolio Optimization — December 2018

- Gathered adjusted closing price of several ETFs using Bloomberg terminal, used Python (NumPy, Matplotlib, Pandas) to visualize data and perform outlier detections
- Generated efficient frontiers by using Monte Carlo Simulation to simulate the different combinations of ETFs
- Constructed scatterplot based on expected return and volatility, and derived the optimal portfolio

SKILLS AND CREDENTIALS

Programming: C++, Python (NumPy, pandas, Matplotlib, TensorFlow), R, SQL, MATLAB, Tableau, LaTeX, Kubernetes (learning)

Certifications: CFA Level I Candidate, Bloomberg Market Concepts, AWS Machine Learning Foundation on Udacity

Languages: Mandarin (Native), English (Fluent), Spanish (Elementary)