

Ailin Yu

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Education

Boston University Boston, MA | Aug 2020 – Jan 2022
M.S. Mathematical Finance & Financial Technology GPA: 3.59/4.00

- **Awards:** Math Finance Scholarship

Carnegie Mellon University Pittsburgh, PA | Aug 2016 – May 2020
B.S. Mathematical Sciences; Minor in Computational Finance GPA: 3.09/4.00

- **Concentrations:** Operations Research and Statistics
- **Awards:** Dean's List, Luther Philo Maier Scholarship

Courses & Skills

- **Coursework:** Advanced Programming, Machine Learning, Advanced Data Analysis, Computational Methods, Stochastic Methods, Numerical Methods, Fixed Income, Operations Research, Linear Algebra, Finance, Economics, Accounting
- **Skills:** Python, C/C++, Julia, SQL, R, Matlab, Mathematica, LaTeX, SML, Excel, PowerPoint, Communications, Team Work, Interpersonal Skills, Presentation

Experience

ING, Financial Markets Intern(Commodities Sales & Trading) New York, NY | June 2021 – Aug 2021

- Automated the process of gathering, organizing and cleaning power prices from online databases
- Worked with IT department on creating and presenting a secure file sharing and storage solution
- Implemented a program that continuously updated historical prices for a selection of commodities
- Developed an UI program that outputs the desired newsletter content and layout for client reports
- Constructed several models on predicting natural gas prices using daily weather patterns from 2011 to 2019. With the XGBoost model, achieved 85% accuracy on 2 years of test data.

Raymond James, Financial Services Intern Smithtown, NY | May 2020 – Aug 2020

- Collaborated with investment managers to update client portfolios
- Prepared asset allocation reports for over 100 clients
- Facilitated ongoing advisory work for investment recommendations and rebalancing client portfolios

Scoobi Co., Operations Research Intern Pittsburgh, PA | May 2018 – Jan 2019

- Performed operations analysis for Scoobi (electric scooter ride-sharing company)
- Obtained, cleaned and analyzed similar companies' user and ride data in Python and Excel
- Drafted daily reports for operations team to optimize battery replenishment and maintenance routes
- Reported consumer density trends to Department of Mobility and Infrastructure of the City of Pittsburgh

Projects

Momentum and Volume Analysis on Stock Returns Project Boston, MA | Oct 2020 – Dec 2020

- Collected 10 years of historical stock returns on the top 40 market capital stocks and constructed portfolios using trading momentum calculated through regression and trading volume
- Conducted analysis on the effect of trading momentum and trading volume on stock returns using back-testing in Python and compared the performance of portfolios to benchmark portfolio (S&P 500)

Optimizing Travel Time in a Network Research Project Pittsburgh, PA | May 2019 – Jun 2019

- Developed a Python program involving quadratic programming and automatic differentiation to compute optimal route in a network.

Energy Consumption Research Project Pittsburgh, PA | Sep 2018 – Jan 2019

- Analyzed consumer data for electric scooters in Pittsburgh to determine factors affecting usage including cost, travel time and convenience and compared the associated energy consumption to four other modes of transportation using Python, R and Excel

Additional Information

- **Languages:** English, Mandarin
- **Interests:** Badminton, Korean Reality Shows, Piano (NYSSMA level 6)
- **Leadership Activities:** Computer Science Tutor at Juni Learning, President and Co-founder of Chinese Cooking Club at Carnegie Mellon University(organized community events and managed \$2,500 budget from March 2019 to May 2020), Mentor for Chinese Student Association at Carnegie Mellon University