Wyett "Huaye" Zeng

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Skills

- **Actively running a $200,000 portfolio** in public equity and fixed income for my parents; risk is managed through diversification in asset classes and geographical allocations. Though a strategy of purchasing put options is proposed to further hedge against market risk, it has not been practiced yet.
- Strong quantitative analytical skills in: **Python, SQL**, **R**, **Tableau** and **Power BI**. Experienced with **API calls** to **external databases**, and **data science packages** such as **PyTorch, Keras, Pandas, Seaborn** and **Numpy**.
- Capable of writing production-level code in **Java, Python, C, C++, C#, Go, VBA, HTML, CSS**, and **JavaScript**.

Education

University of Waterloo & Wilfrid Laurier University — Waterloo, Canada

Bachelor of Business Administration and Computer Science (Double Degree) — Sep 2020 – Aug 2025

Artificial Intelligence Specialization + Finance Concentration (4.0 GPA)

Relevant Experiences

Wilfrid Laurier University | Research Assistant — Sep 2023 – Present

- The research's objective is to gain insights into how investors' perceptions of the current state of the economy influence the required risk premiums for various investment horizons. I process Dow Jones' news corpus with **efficient** and **optimized** Python code as the data is massive, and apply **LDA** model to the processed data.

CIBC – Gallant MacDonald | Data Scientist — Jan 2023 – Apr 2023

- Developed the market analysis automation report, where the algorithm make RESTful API calls to external partners to acquire enormous amounts of data. Then employ **Python** packages such as **pandas** for data cleaning and processing, and **Seaborn** for presenting information. The result is a customizable algorithm that captures market insights and presents market trends to team members in less than three minutes.
- Developed the quantitative portfolio builder, which takes in data of desired return and a list of assets, then produces a portfolio that imitates the movements of the desired return using **QSolver**. This tool provides insight into the underlying asset class and risk exposure for the more "obscure" alternative investment hedge funds the team connects to.
- Partook in numerous due diligence meetings with portfolio managers from big hedge funds such as TCC, Group RMC, and Hamilton Lane. After the meeting, produced a detailed report identifying areas of concern such as **liquidity options, distribution schedule, market correlation, fx risks, and interest risk.**

Projects – more projects available at wyett-zeng.com

Market Index Prediction Model (GitHub Repo)

- Developed a model that predicts the daily price movement of the S&P 500 market index using **PyTorch**. 55+ data sets are pre-processed with **PCA** to reduce dimensionality. Then, a **three-layered feedforward ANN structure** was used to output the probability of the movement of the index. The model has an accuracy of 77%; however, the model is not deployed as some data sets are released with five days delay.

Bank Stock Price Prediction Model (GitHub Repo)

- Developed an **LSTM** model using **Scikit-learn** and **Keras** that predicts the 5-day price of a few selected commercial banks in China. The daily closing price of these four banks is trained with a **multi-step output static prediction method** to project the daily closing price of the next five days. The trained model has a mean absolute error of 0.087 and mean square error of 0.012.