Wyett "Huaye" Zeng

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Education

University of Waterloo & Wilfrid Laurier University — Waterloo, Canada

Bachelor of Computer Science and Business Administration (4.0 GPA) — Sep 2020 – Aug 2025

Artificial Intelligence Specialization + Finance Concentration

Work 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 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.
- Developed the market analysis automation report, where the algorithm acquires enormous amounts of data using **RESTful API** from third party data providers like Morningstar. Then employs **pandas** for data cleaning and processing, and **Seaborn** for presenting information. The result is a customizable algorithm that captures market data insights and presents market trends to team members in less than three minutes.

Siemens Healthineers | Software Engineer — Jan 2022 – Apr 2022

- Developed and maintained the Android program NXS for Epoc Blood Analysis System's host-4 device using **Android Studio** and **Java**. The program is built with **multi-threaded** capabilities that require **asynchronous scheduling**. Since NXS is the OS of a medical device and patient safety is on the line; **correctness** is the utmost priority, and code changes go through rigorous review and testing before being used in production.

Projects – more projects available at wyett-zeng.com

CxC Data Science Hackathon (2023) (GitHub Repo)

- A Data Science/ML hackathon where each team trains a model on labeled data sets to predict if a section of the amino acid will bind to a given drug. The model is then applied to unlabeled data. During the hackathon, our team tried models such as **linear regression, logistical regression, MLP, decision tree, and random forest.** Random forest is used in the end with F1 score = 71.90%.

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.

Skills

- Languages: Java, Python, C++, C, C#, Go, Racket, SQL, Bash, JavaScript, HTML/CSS, VBA
- Tools: Pytorch, Scikit-Learn, Keras, Pandas, NumPy, Seaborn, Postman, AWS, Azure, Git, SVN, Jenkins, Tableau, MySQL, Android Studio, Jira, React