Wyett “Huaye” Zeng

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Skills

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

Education

University of Waterloo & Wilfrid Laurier University Sep 2020 – Aug 2025
Bachelor of Computer Science and Business Administration (4.0 GPA)

Experiences

Boosted.ai | Quantitative Developer Jan 2024 – Apr 2024

- Developed the factor model, which is part of the underlying **machine learning analysis algorithm** for Boosted.ai. The algorithm uses **numpy, Clickhouse, and PostgreSQL** to efficiently compute over 20 economic factor values for **every publicly listed security and ETF** against 50+ universes each day.
- Maintained the investment style matching feature using **Python, gRPC, and protobuf**. The feature analyzes client’s portfolios and reports the fitness between their portfolio and their selected investment style.
- Partook in the **AI commentary features** which use the power of **large language models (LLMs)** to comment on the performances and risk factors of clients' portfolios. The feature also analyzes news data to give summarized information on various topics that the user is interested in.

University of Waterloo | Researcher Sep 2023 – Present

- Supervised by Professor Chen Wenhu & PhD Candidate Jiang Dongfu. Lead the **thesis paper** on the analysis of **pairwise reward model**, which is introduced in the **LLM-Blender paper** .
- The thesis paper aims to analyze the performance gains for LLMs and limitations for pairRM by systematically comparing pairRM against different reward models with various categories of input data.

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

- Developed the review automation program, which reduces a 30-minute manual task to a less than 7-minute automated task, and supports the team's monthly workload of over 50 reviews. The program is built using **PyQt5** with **multi-threading** capabilities using **QThread**; it also makes **RESTful API calls** to retrieve data from various external partners.
- Developed the market analysis automation report that presents hundreds of market trend graphs to team members in less than three minutes. The algorithm is created with **Morningstar API**, **pandas,** and **Seaborn.**

Siemens Healthineers | Android Software Enginner 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**. 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.
- Fixed the Glucose conversion issue, which arose from incorrect **asynchronous saving logic** with **Realm database** and **Reactive Java**.

Project – more projects available at wyett-zeng.com

Voyage

- Currently developing a website and mobile apps that leverage **GPT** or other **NLP models’** capabilities to create customized travel itinerary plans.
- The project contains 3 major components: the frontend interface created with **React** that receives user input and make **RESTful API** calls to our backend server; a backend server built with **Go** that receives and handles incoming API calls and manages user account and **NoSQL database**; and an NLP component.