

# Wyett “Huaye” Zeng

[w33zeng@uwaterloo.ca](mailto:w33zeng@uwaterloo.ca) | 519-729-8107 | [wyett-zeng.com](http://wyett-zeng.com) | [LinkedIn](#) | [GitHub](#)

## Education

### University of Waterloo & Wilfrid Laurier University

Bachelor of Computer Science and Business Administration (Major Average 94.8 / 100)

Artificial Intelligence Specialization + Finance Concentration

Waterloo, Canada

Sep 2020 – Aug 2025

## Experiences

### Quantitative Developer | Boosted.ai

Jan 2024 – Apr 2024

- Rewrite the factor model algorithm which reduces 10,000+ customer models' daily inference time by over **90%**. The algorithm uses **numpy**, **Clickhouse**, and **PostgreSQL** to efficiently compute economic factor values for **every publicly listed security and ETF** each day.
- Developed the investment style matching feature facing 1000+ institutional clients using **Python**, **gRPC**, and **protobuf**. The feature analyzes client's portfolios and reports the fitness of their selected investment style.
- Added features in the **Boosted.ai trading algorithm** to optimize daily stock selection for all the company's clients. The added features expand the algorithm's capabilities to construct portfolios that align closer with the client's needs.
- Developed the **AI commentary features** facing 1000+ institutional clients which use the power of **large language models (LLMs)** to **create textual analysis** on the clients' portfolios against various macro topics.

### LLM Researcher | University of Waterloo

Sep 2023 – Aug 2024

- Supervised by Professor Chen Wenhui & PhD Candidate Jiang Dongfu, I **led the thesis paper** on applying direct preference optimization (DPO) techniques to create a new reward model for code generation tasks.
- Utilized 50+ pre-trained LLMs to make inferences on 10+ datasets using tools such as **Huggingface Transformers** and **vLLM**. Then create a new reward model based on the **Pairwise Reward Model** architecture.
- Developed the **MFuyu** project, where we explored LLMs' ability to reason about multiple images. Created a **new multi-image benchmark dataset** from over 17 existing datasets. Then fine-tuned the **Fuyu** model using the Huggingface **transformers** library to create a custom model capable of reasoning over multiple images.

### LLM Researcher | Wilfrid Laurier University

Sep 2023 – Aug 2024

- Supervised by Professor Diego Amaya, I **led the thesis paper** on applying LLMs on **sentiment predictions on market news**. In contrast to previous research, this paper will take a deeper dive into the technical aspects of LLMs in hopes of **improving accuracy** against even the highest-performing general-purpose model such as ChatGPT4.
- Created a new dataset based on **Dow Jones News Wires** and **Wharton Research Data Service** to label each news with sentiment tags. Then finetuned existing LLMs such as **Bert**, **Mistral**, and **Llama** using **Huggingface Transformers** and **QLoRA**.

### Data Scientist | CIBC – Gallant MacDonald

Jan 2023 – Apr 2023

- Developed the **quantitative portfolio builder**, which can construct a portfolio whose return is within  **$\pm 2.8\%$  of the desired return** using **QSolver** to provide insight into the more “obscure” alternative investment hedge funds.
- Developed the market analysis report that presents hundreds of market trend graphs to team members in less than 3 minutes. The algorithm is created with **Morningstar API**, **pandas**, and **Seaborn**.

### Software Engineer | Siemens Healthineers

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**.
- Fixed the Glucose conversion issue and improved its performance by 70%. This issue arose from incorrect **asynchronous saving logic** with **Realm database** and **Reactive Java**.

## Skills

- Languages: Java, Python, C++, C, C#, Go, SQL, Bash, JavaScript, HTML/CSS
- Tools: Hugging Face, Pytorch, Protobuf, Scikit-Learn, Keras, Pandas, NumPy, Seaborn, Slurm, gRPC, Protobuf, GraphQL, Clickhouse, PostgreSQL, REST API, Argo, Postman, Git, SVN, Jenkins, Tableau, Android Studio, React