Wyett "Huaye" Zeng

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Education

University of Waterloo & Wilfrid Laurier University Waterloo, Canada

Bachelor of Computer Science and Business Administration (Major Average 94.8 / 100) Sep 2020 – Aug 2025

Artificial Intelligence Specialization + Finance Concentration

Summary of Qualifications

- **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. Currently, the NA portfolio has a **25.83% IRR**.
- Experienced in writing **high-performing code** that **analyzed 50+ trillion data points** on market data to produce meaningful analysis that provides insights into both macro and micro topics.
- Strong quantitative analytical skills in **Python, SQL**, **R**, **Tableau**, and **Power BI**. Experienced with **data science packages** such as **PyTorch, Keras, Pandas, Seaborn**, and **Numpy**.
- Experienced in carrying out qualitative **fundamental analysis** in public equities, fixed income, derivatives, and alternative investments.

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.
- 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 | 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 on various security types such as specific sectors of public equities, commodities, fixed income, etc.
- Finetuned existing LLMs such as **Bert, Mistral,** and **Llama** using **Huggingface Transformers** and **QLoRA** for sentiment analysis on the newly created dataset mentioned above.

LLM Researcher | University of Waterloo Sep 2023 – Aug 2024

- Supervised by Professor Chen Wenhu & 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.

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

- Developed the **quantitative portfolio builder**, which can construct a portfolio whose return is within **±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.**
- 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.**