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

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.

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

- Developed the quantitative portfolio builder, which 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.

Research Experiences

University of Waterloo | Professor Chen Wenhu & PhD Candidate Jiang Dongfu — Sep 2023 – Present

- PairRM (***Lead***, Ongoing): Upon the release of the **LLM-Blender paper** , **the pairwise reward model** has been widely adopted in different models and has seen considerable performance gains . This *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.
- Many-Image-QA (Ongoing): The research’s objective is to create a **multimodal benchmark** that focuses on evaluating MLLM’s abilities on inputs with **interleaved formats of text and multiple images**. The benchmark is composed of 3 components, in increasing difficulties: difference description, logical reasoning, and complex reasoning. We also trained a custom LLM on the created benchmark based on **Fuyu 7B**.

Wilfrid Laurier University | Professor Diego Amaya — Sep 2023 – Present

- Wired News & Market Prediction (***Lead***, Ongoing): The *thesis paper* aims to understand the effects of wired news on the price movements of securities. I annotated each news article in the **Dow Jones News Wires** with data from **Wharton Research Data Service**, identified news that caused major shifts in price movements, and employed LLMs such as **LDA** and **Bert** to analyze the selected news.

Skills

- Languages: Java, Python, C++, C, C#, Go, Racket, SQL, Bash, JavaScript
- 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