**Edgar Zhu**

405 S Main St, Ann Arbor, MI 48104 • 805‑689‑6773 • [dejiazhu@umich.edu](mailto:dejiazhu@umich.edu) • [https://www.linkedin.com/in/edgar‑zhu‑145091279](https://www.linkedin.com/in/edgar-zhu-145091279)

**education**

**University of Michigan, Ann Arbor** **Ann Arbor, MI**

*B.S. Computer Science, B.S. Honors Economics, Minor in Business* August 2022-Present

**GPA:** 3.97/4.0

**Relevant Courses:** Machine Learning, Computer Organization, Data Strucutres, Financial Accounting, Corporate Finance, Financial Markets, Econmetrics, Labor Economics

**Technical Skills:** R, STATA, C++, Python, JAVA, SQL, TensorFlow

**Clubs/Activities:** Cofounder of Michigan Chinese Investment Club; VP Operations at Asian Consortium for Economics Development; Michigan Finance and Mathematics Society; Michigan Data Science Team; Chinese Soccer Club

**experience**

**AI Lab, Tencent Headquarters** **Shenzhen, China**

Back-end Developer June 2024-September 2024

* Assisted in AI Application Development Team, developing a **Large Language Model (LLM)** to transform rough gaming commentaries into natural, colloquial speech for **King of Glory** and **PUBG**.
* Web-scraped real commentaries using **Automatic Speech Recognition (ASR)** and processed **20,000+** pairs of colloquial and non-colloquial training data to train the **Qwen2.0-7B** LLM via **Supervised Fine-Tuning (SFT)**.
* Delivered a model with **85%** successful rewrite rate and created a comprehensive training handbook, enabling future product scalability and style transfer by the product team.

**DevLab, University of Michigan**  **Ann Arbor, MI**

Data Analyst March 2024-September 2024

* Collaborated on a high-impact development economics project, "Price of Faith: Economic Conditions and Religious Adherence," investigating the effect of religious prohibitions on **80,000+** Seventh-day Adventists in Africa.
* Conducted comprehensive data analysis by writing Stata code to execute **200+** regressions, uncovering key relationships between economic conditions and religious adherence.
* Played a pivotal role in preparing results for submission to **NBER**, formatting outputs in **LaTeX** and contributing to the final paper's submission to a leading development economics journal.

**Projects**

**Mortality Prediction Model**

* Developed a **machine learning** model to predict in-hospital mortality using real ICU patient data, leveraging **scikit-learn** and implementing classification techniques to identify patients at risk.
* Processed and extracted features from **12,000** patient admissions by summarizing time-invariant and time-varying variables, handling missing data with imputation, and normalizing feature sets for effective model training.
* Applied **hyperparameter tuning** and **cross-validation** for logistic regression models, optimizing performance measures such as **F1-score** and **AUROC**, and delivering actionable insights for potential clinical applications.

**Stock Market Simulation Program**

* Developed a stock market simulation in C++ using object-oriented design and **priority queues** to emulate real-time buy/sell orders, ensuring optimal trade execution based on price and timestamp.
* Implemented multiple priority queue data structures (including **pairing heaps**) to compare performance, where buyers purchased shares at the lowest price and sellers sold at the highest, with trades prioritized by earlier orders.
* Designed and tested robust command-line interfaces to handle various input modes and output options, ensuring accurate trade matching, median price calculation, and time-travel trading profitability.

**MDST Stock Market Analysis**

* Collaborated with a team to analyze stock market trends using Python libraries (NumPy, Pandas, Matplotlib) for exploratory data analysis (**EDA**) on financial datasets sourced from **Yahoo Finance** and **Kaggle**
* Designed and trained **LSTM** neural networks for stock price prediction using TensorFlow, incorporating sentiment analysis from news headlines to enhance model accuracy

**Additionals**

* Die-hard soccer fan who idolizes Cristiano Ronaldo and follows Liverpool
* Sci-Fi enthusiast, wrote a utopian novella on the future society built on a fictional currency
* Amateur film director, favorite movie is 8½, directed and starred in a music video last summer