Anthony Zhang

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Education

Northwestern University — **Sept 2024 – Expected Dec 2025**
Masters of Science in Computer Science; GPA 3.93 — *Evanston, IL*

University of Washington — **Sept 2020 – June 2024**
Bachelor of Science in Computer and Information Science: Data Science; GPA 3.80 — *Seattle, WA*

Experience

Founding Engineer — **Aug 2024 – Oct 2024**
LifeLensAR LLC. (an AI/AR healthcare company) — *Seattle, WA*

- Programmed an **Android** Augmented Reality (AR) application using Kotlin, integrated with healthcare data systems, and deployed to DigiLens ARGO AR wearables. Automated healthcare data entry tasks, reducing healthcare workers' data processing time by 70%. This project helped jumpstart the company and led to recognition as a co-inventor on a provisional patent. - Kotlin, Gradle, Data pipeline
- Optimized the application's front-end UI by establishing an **LLM-based design pipeline** that converted hand-drawn UI sketches into programmable Figma wireframes, streamlining the design process and improving efficiency by 105%. - AI assisted UI pipeline, S3
- Implemented a high-fidelity UI demo using **React** and deployed it on **Heroku**, which was used in further executive meetings and ultimately helping secure over $600,000 in additional funding for the company. - Git, React, Heroku

Software Engineer Intern — **June 2023 – Sept 2023**
Hiya Inc. (an AI Telecom company) — *Seattle, WA*

- Led the **Agile development** of a **full-stack data dashboard** tool using **React** for frontend and **Express.js** for backend to improve customer communication; resulted in a 32% increase in communication efficiency by streamlining interactions and issue resolution processes. - React, Express.js, Node.js, RESTful API, Jira
- Developed the project code in **TypeScript** and containerized it using Docker. Implemented GitLab CI/CD pipelines for automated testing and deployment, ultimately increasing user efficiency by 75%. Managed with Git throughout the SDLC. - Typescript, Linux, Docker, Kubernetes, CI/CD, Postman
- Created a Python-based Slack bot for internal Q&A, leveraging Jenkins for continuous integration. The project evolved into a key development assistant tool, integrated with the company's Git-based wiki hub which reduced average query response time by 40%. - Python, Jenkins, Git

Data Analyst — **June 2022 – Dec 2022**
University of Washington — *Seattle, Washington*

- Preprocessed large global carbon emission datasets using **Python**, optimizing data quality and reducing error occurrence by 67%. Automated the data cleaning process as part of a scalable ETL pipeline, ensuring the dataset's integrity for future use. - Python (*pandas*, *NumPy*), ETL Pipeline
- Deployed **interactive Tableau dashboards** linked to a data warehouse, providing real-time visualization of emission trends. The dashboards enabled stakeholders to identify key contributors and analyze diverse emission sources with greater clarity. - Tableau
- Collaborated with Microsoft to design and implement a **scalable relational database** using **SQL**, improving the efficiency of storing and retrieving carbon emission data. Integrated this with** cloud-based storage solutions** for future scalability and analysis. - SQL, Azure

Project

2024 Election Prediction With Neural Network | PyTorch, Numpy — **Oct 2024 – Dec 2024**

- Implemented a dual-method classification model containing **feedforward neural networks** and **decision trees** using **PyTorch** to predict & verify the 2024 U.S. presidential election outcomes. The model was trained on a combined dataset containing per-county data on various socio-economic dimensions from the United States Department of Agriculture and the Bureau of Labor Statistics.
- **Processed the output data** to predict each state's final choice between the Republican and Democratic parties with an average accuracy of 71%, culminating in a final prediction of a Republican win.

Weather data visualization | Javascript, D3.js — **May 2022 – July 2022**

- Implemented **data visualizations** using D3.js and JavaScript to analyze America's weather data in 2014, focusing on the dryness and wetness trends in major cities throughout the year. Integrated the weather dataset into a data pipeline for ongoing reporting.
- Performed data comparison between the weather and public travel data for 2014 by building a Javascript **data analysis** pipeline. Generated report highlighting correlations between weather patterns and travel behavior.