Jihao Ye

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EDUCATION

University of Houston — **Expected December 2025**
BS in Computer Science — *Houston, TX*

TECHNICAL SKILLS

Languages : Python, C++, JavaScript, SQL
Frameworks: Boost.Asio, Express, Django, Flask, Redis, NumPy, Poco, Pandas, Node.js, OpenCV
Developer Tools: AWS, Azure, GCP, Git, Docker, Postman
Operating Systems: Linux, Windows, MacOS

WORK EXPERIENCE

LucaAI — **October 2024 – January 2025**
Founding Engineer — *Houston, TX*
Backend Development, LLM Pipeline

- Automated data extraction from tax documents using curated **OCR** model, reducing manual data entry time by **80%**
- Developed a **CrewAI** workflow to automate tax filing categorization, eliminating manual processing of client documents
- Built an **LLM-driven** search system with **vector DB**, enabling accountants to query client data **5x faster**

HIPPSC — **June 2023 – October 2024**
Software Engineer Intern — *Remote*
Web Development, Python Scripting

- Built web app automating **12,000+** tool combinations, reducing turnaround time by **80%** compared to manual inquiries
- Integrated **Three.js** in the frontend to dynamically render 3D STL files, enabling interactive tool visualization
- Implemented an email service using **Python**, automating categorization and cutting lead response time by **40%**
- Implemented a multilingual feature using **i18next**, enhancing accessibility of the company website across the globe

Tiger Valve Company — **June 2021 – August 2021**
Data Analyst Intern — *Houston, TX*
Data Analytics, API Design

- Automated weekly analytics reports, enabling data-driven insights; led to a **20%** increase in space utilization
- Developed an **API** to fetch data from the warehouse management system, improving stock visibility and reducing errors
- Implemented a **cloud-based** bar-code scanning system for real-time inventory tracking, enhanced operational efficiency
- Designed **Google Workspace** account management processes, **reduced data leakage risks** and ensured safe off-boarding

SELECTED PROJECTS

News Personalization Web App | *React, LLM, AWS, Redis* — **February 2025**

- Integrated **News API** to fetch and categorize real-time news, optimized with **Redis**, reducing latency by **40%**
- Leveraged **OpenAI API** to generate personalized summaries and sentiment analysis, improved user experience
- Deployed a fully serverless infrastructure with **AWS** Amplify and DynamoDB, ensuring scalability and performance

File Server | *C++, Boost.Asio, Poco* — **November 2024**

- Developed a cloud storage service in C++, utilizing **Boost.Asio** for async networking, **Poco** for file transfers, and multi-threading to handle hundreds of concurrent connections
- Optimized server infrastructure with efficient I/O handling, load balancing, and custom error management
- Implemented SSL/TLS encryption, OAuth 2.0 authentication, and secure token management

Picton - User Management System | *Django, React, PostgreSQL* — **April 2025**

- Developed a full-stack user management system with **role-based access control (RBAC)**, integrating **Office365** authentication
- Built backend with **Django** and frontend with **React/Vite**, implementing secure user authentication and authorization
- Designed and implemented **PostgreSQL** database schema, ensuring data integrity and efficient access control management