JIHAO YE

📞 832-996-7496 ✉ jihaoye1@gmail.com 🔗 jihaoye ⬡ github.com/jihaoyb

EDUCATION

University of Houston **Dec 2025**
BS in Computer Science *Houston, TX*

WORK EXPERIENCE

HIPPSC **June 2023 – Present**
Software Developer Intern *Shenzhen, China (Remote)*
- Developed a web application for HIPPSC's modular tooling series, **automating 12,000+ tool combinations**. Enabled end-users to customize tools and download 3D files directly, **reducing tooling querying and quoting time by 80%**
- Collaborated on the R&D of tool setup machines and robotic arm integration, contributing to the design of user-friendly system interfaces and **enhancing the customer onboarding process** to ensure seamless adoption
- Implemented a multilingual feature using i18next, enhancing accessibility of the company website across the globe
- Developed a robust **email API service** to capture user input from the website, facilitating seamless communication by dispatching emails to the sales team and archiving customer data in the company's database
- Refactored the frontend architecture into component-based design, integrated with **AWS S3 and CloudFront**, significantly boosting site performance and elevating the user experience across different geographic regions

Tiger Valve Company **June 2021 – August 2021**
Data Analyst Intern *Houston, TX*
- Implemented a **cloud-based barcode scanning system** that enabled remote, real-time inventory access, significantly improving operational efficiency, tracking accuracy, and scalability compared to traditional local systems
- Crafted weekly reports with visualizations on key warehouse metrics—that empowered management to make timely strategic decisions, resulting in a **20% increase in space utilization**, as reported by the warehouse supervisor
- Collaborated with the engineering team to securely manage Google Workspace accounts, ensuring the deletion of former employee profiles and retrieval of associated warehouse data, **effectively mitigating risks of data leakage**

SELECTED PROJECTS

News Personalization Web App | *React, AWS, Express.js, PostgreSQL, Redis, LLM* **November 2024**
- Integrated multiple external APIs—including **News API and GNews API**—to fetch and categorize real-time news personalized to user preferences; optimized data retrieval with **Redis caching**, **reducing latency by 40%**
- Incorporated LLMs via **OpenAI API** to provide personalized summaries for quick reads, perform sentiment analysis, and conduct fact-checking of news articles, **enhancing user engagement and content trustworthiness**
- Architected and deployed a fully serverless and scalable infrastructure using **AWS Amplify** for full-stack deployment, **AppSync** for GraphQL API management, and **DynamoDB** for high-performance, flexible data storage

File Server | *C++, Boost.Asio, Poco* **November 2024**
- Built a cloud storage service using **C++**, leveraging **Boost.Asio** for asynchronous networking, **Poco libraries** for file transfer protocols, and **multi-threading** to manage **hundreds of concurrent connections** effectively.
- Optimized server infrastructure for **scalability** and improved **network throughput**, integrating efficient I/O handling, load balancing algorithms, and custom error handling to support large-scale file operations.
- Implemented robust **SSL/TLS encryption**, **OAuth 2.0 authentication**, and secure token management, ensuring data transmission integrity, user authentication, and compliance with **modern industry security standards**.

Network Penetration | *Kali Linux* **November 2023**
- Conducted targeted network surveillance using **airodump-ng** to capture essential data packets for security analysis
- Applied cryptographic analysis techniques to **decrypt WEP/WPA/WPA2 protocols**, extracting initialization vectors and keys from the captured data, underscoring security vulnerabilities of the targeted networks
- Leveraged decryption keys to **conduct a detailed analysis of client-router packet** exchanges, extracting sensitive data such as user credentials and session tokens and understanding security vulnerabilities extending beyond network perimeters

TECHNICAL SKILLS

Languages : Python, SQL, C++, JavaScript, Java
Frameworks: Boost.Asio, Express, React, Redis, NumPy, Poco, Pandas, Node.js
Databases: AWS, Firebase, GCP, MongoDB, MySQL, PostgreSQL
Operating Systems: Kali Linux, Windows, MacOS