

YIMIAN LIU

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EDUCATION

Cornell University

M.Eng. in Electrical and Computer Engineering; GPA: **3.94/4.00**

Relevant coursework: Distributed Computing Principles, Embedded Operating System, Deep Learning, Machine Learning, Digital Systems Design Using Microcontrollers, Computer Vision, Computer Networks, UNIX Tools and Scripting

Ithaca, NY, USA

Aug. 2022 – Dec. 2023

University of Liverpool

B.Eng. in Electrical and Electronics (Honor Degree); GPA: **3.83/4.00**

Relevant coursework: C/C++ Programming, Software Engineering, Image Processing, Neural Networks

Liverpool, UK

Sep. 2017 – July 2021

SKILLS

Languages: Python, C/C++, TypeScript/JavaScript, Java, HTML/CSS, PHP, Lua, Linux Bash, SQL, Assembly

Technologies: Kubernetes, Docker, Nginx, Node.js, React, Sass, MongoDB, MySQL, Git, CI/CD, RESTful, AWS

WORK EXPERIENCE

Full Stack Developer

Elseware Capital

(Remote)

Jan. 2024 – Present

- Worked on the further development of a Commercial Real Estate trading platform, leveraging expertise in **ReactJS** (front-end), **Node.js** (back-end), and **MySQL** (database) to enhance system functionality and performance.
- Implemented KYC (Know Your Customer) and KYB (Know Your Business) processes by integrating a third-party provider's **SDK** and **RESTful API**, thereby improving the platform's security framework and user verification mechanisms.
- Collaborated closely with the backend development team of the Token Studio, facilitating its seamless integration with the trading platform's front-end, back-end, and database to support efficient digital asset management and trading.

Front-End Developer Intern

Guzman Energy

New York, NY, USA (Remote)

July 2023 – Dec. 2023

- Improved a trading index portal with **ReactJS**, **TypeScript**, and **Material-UI**, applying CSR for better user interaction.
- Integrated Microsoft Azure 2FA into the trading portal, utilizing **OAuth2** and **JWT** for secure user login.
- Leveraged **Docker** to containerize the applications and deployed them to **AWS EC2** for efficient scaling.
- Developed an AI Scribe App for **Android** and **iOS** using **React Native** from scratch, adhering the Figma designs provided by the UI team.
- Collaborated with backend team, utilizing **RESTful API** and Bearer tokens for secure data management and user authentication.

PROJECTS

Full-Stack Development and Management of High-Traffic Web Services

Individual Project

Ithaca, NY, USA

April 2018 – Present

- Conceptualized, designed, and deployed various self-developed, purpose-specific websites and web services.
- Employed advanced front-end technologies like Gatsby, **ReactJS**, **Sass**, Bootstrap, WebSocket, and **JQuery**, integrating GA4 for data-driven performance analytics.
- Efficiently handled back-end services using a mix of Node.js, **Express**, Python **Flask**, and **PHP**, showing flexibility and adaptability across different programming environments and requirements.
- Developed a widely-used Random Image API with **PHP**, **MySQL**, **Redis**, and CDN, achieving **over 100,000 visits per day**, highlighting capability in scaling web services.

Distributed, Linearizable, Sharded Key-Value Database

Course Project advised by Prof. Lorenzo Alvisi

Ithaca, NY, USA

March 2023 – May 2023

- Crafted a high-performance, sharded key-value store using **Java**, tailored for distributed environments.
- Adapted and deployed the **Multi-Paxos** protocol, a key algorithm ensuring system resilience as long as a majority of servers are operational.
- Refined system efficiency by transforming Multi-Paxos into a streamlined **Raft**-like protocol, reducing complexity while boosting performance.

AWARDS

- **Machine Learning:** Secured **2nd rank** out of 55 in a Cornell in-class Kaggle competition by designing a highly accurate CNN model using **Keras**, with data preprocessing and ensembling techniques applied to a noisy MNIST dataset.