

Jia-Chih (Roger) Lin

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Education

Master of Software Engineering | University of California, Irvine, Irvine

Sep 2024 - Dec 2025

- GPA: 4.00/4.00
- Courses in academic record:
Web Programming, Network Programming, Neural Network Programming, Concurrent Programming, ..., etc.

Geosciences, Master of Science | National Taiwan University, Taipei, Taiwan

Sep 2018 - Jan 2021

- GPA: 3.98/4.00 | Class Rank: 1/17

Geosciences, Bachelor of Science | National Taiwan University, Taipei, Taiwan

Sep 2014 - Jun 2018

- GPA: 3.71/4.00 | Class Rank: 4/31 | President's Award for 3 semesters

Experience

Senior Software Engineer | Wistron Corporation, Taipei, Taiwan

Feb 2021 - Jul 2024

- Built a bug search engine using **Django** (Python-based web framework) and **BERT** (Bidirectional Encoder Representations from Transformers), reducing search time by 16 hours per month for a team of 10 engineers.
- Developed an automation infrastructure using **Laravel** (PHP-based web framework) and **Jenkins**, leading to \$80,000 in annual savings for the company.
- Streamlined data collection processes, adopting **Airflow** and **Kafka** to access company public data, and saved 16 hours per month for developers.
- Implemented **GitLab CI/CD** with **Docker** and **Docker Compose**, increasing unit testing coverage by 10%, improving system reliability, and reducing deployment time from 40 to 5 minutes.
- Processed 45GB of data using **SQL** and **Supervisord**, implementing information retrieval systems to deliver real-time insights to managers and improving production decision-making.
- Leveraged **OAuth2** with **Microsoft Azure** to connect legacy systems, enabling **Single Sign-On** for over 300 employees and simplifying the user login experience.

Software Projects

Webmail System | Web Programming | University of California, Irvine

Sep 2024 - Dec 2024

TypeScript | **JavaScript** | **Node.js** | **Express.js** | **React.js** | **Redux** | **SMTP** | **IMAP**

- Integrated real-time push notifications on the client side using **React.js** and **Redux**, allowing users to see their updated profile picture instantly, increasing user engagement and responsiveness.
- Designed and implemented **RESTful** APIs using **Node.js** and **Express.js** to manage user information, email operations (retrieval, sending, and deletion), and support real-time communication between the client and server.
- Implemented Gmail **SMTP** and **IMAP** protocols for seamless email sending and retrieval, ensuring smooth integration with external email systems.

Network File Server | Network Programming | University of California, Irvine

Sep 2024 - Dec 2024

Java | **TCP** | **UDP**

- Developed a **TCP-based** network file server, handling client-server communication over a reliable connection for the transmission of text files.
- Transitioned the server to the **UDP protocol**, implementing logic to handle datagram size limits by breaking files into smaller chunks and ensuring reliable transmission with proper chunk ordering and retransmission of lost packets.
- Utilized **Java's threading** model for managing multiple client connections and optimized the server's performance for both TCP and UDP protocols.

Skills & Abilities

Programming languages: Python, Go, Java, TypeScript, PHP, JavaScript, C++

Frameworks: Django, Laravel, NestJS, Node.js, Express.js, React.js, Spring Boot, Flask

Developer Tools: Linux, Docker, Git, Nginx, BERT, Supervisord, MySQL, PostgreSQL, Oracle, MongoDB, Prisma, Redis, Jenkins, Azure, Apache Airflow, Kafka, Swagger, Cloudflare