

Jia-Chih (Roger) Lin

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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**, increasing unit testing coverage by 10%, improving system reliability, and reducing deployment time from 40 to 5 minutes. Also, set up monitoring and alerts, enhancing troubleshooting.
- Processed 45GB of data using **SQL** and **Supervisord**, implementing information retrieval systems to deliver real-time insights to managers and improving production decision-making.
- Implemented **WebSocket** for collaborative forms editing, saving 8 hours per month for 20 project leaders on data organization and weekly report distribution.
- Leveraged **OAuth2** with **Microsoft Azure** to connect legacy systems, enabling **Single Sign-On** for over 300 employees and simplifying the user login experience.
- Enhanced security and reduced webpage load time to under 0.5 seconds by incorporating **SSL** and **HTTP/2** across legacy systems, improving performance for internal company portals.

Education

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

Sep 2024 - Dec 2025

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

Sep 2018 - Jan 2021

- GPA: 3.98/4.00 | Class Rank: 1/17
- CS-related courses in academic record (GPA: 4.00/4.00) (28 credits):
Computer Programming, Data Structure, Algorithms, Computer Networks, Operating Systems, ..., etc.

Geosciences, Master 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

Software Projects

Webmail System | Web Programming | University of California, Irvine

Sep 2024 - Dec 2024

TypeScript | JavaScript | Node.js | React.js | Redux | Redis

- Integrated real-time push notifications using **React.js** and **Redux** to alert users of new emails, enhancing user engagement and overall experience.
- Optimized server performance using asynchronous email queue processing in **Node.js**, reducing latency and enabling fast, real-time email delivery even during periods of high traffic.
- Implemented **Redis** caching to enhance response times for frequently accessed emails and attachments, ensuring faster retrieval and reduced load on the database.

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.

Skills & Abilities

Programming languages: Python, Go, Java, TypeScript, PHP, JavaScript, C++
Frameworks: Django, Laravel, NestJS, Node.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