CHENG-CHIEH (JAY) HUNG

Seattle, Washington

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Education

Northeastern University | GPA: 4.0/4.0

Master of Science in Computer Science

Sep. 2024 – May 2026

Seattle, WA

ChengChi University

Bachelor of Science in Computer Science

Sep. 2019 - May 2023

Taipei, Taiwan

Experience

GoFreight

Feb 2024 – August 2024

Software Engineer | Cloud, Docker, Kubernetes, AWS, PostgreSQL, CI/CD

Taipei, Taiwan

- Developed a scalable real-time monitoring system for 200,000+ shipments, using Python, Django, and Docker.
- Redesigned **PostgreSQL** architecture for the monitoring system, accelerating service performance by 80%.
- Implemented distributed load balancing with **Docker** and **Kubernetes**, integrating **AWS EC2** and **S3**, reducing infrastructure costs by 40%.
- Integrated crawlers with Apache Airflow, enabling scheduled execution and automatic failure recovery.

GoFreight

Jul 2022 – August 2023

Software Engineer Intern | Testing, Machine Learning, RESTful APIs

Taipei, Taiwan

- Implemented unit tests with **Pytest**, achieving 80% test coverage.
- Led a Machine Learning project using historical shipment data to predict ETA, delivering a new feature to clients.
- Implemented features with Vue, REST APIs, and a MySQL database, sharing data metrics with internal teams.

Appar Technologies

Sep 2019 - Sep 2020

Software Engineer Intern | React, Mobile App Development

Taipei, Taiwan

- Developed a cross-platform exam system using React Native, enabling seamless user experience across devices.
- Deployed the application on **iOS** and **Android**, serving 500+ students and improving accessibility to digital exams.

Projects

Job Board Platform | React, FastAPI, PostgreSQL, TypeScript, Docker

- Built a modern frontend with **React**, **Vite**, **Tailwind CSS**, and **TypeScript** to support fast, filterable job search.
- Fetched and auto-tagged external job listings, storing structured data in **PostgreSQL**.
- Designed backend endpoints with FastAPI and planned Redis caching to speed up frequent search queries.

Authentication System with Secure Key Management | MERN Stack, TypeScript, Blockchain

- Developed a full-stack authentication system using the **MERN stack** (MongoDB, Express.js, React, Node.js)
- Implemented smart contracts in **TypeScript** to manage user keys and verify authentication on the blockchain.
- Wrote unit tests with Mocha to ensure the reliability and security of authentication logic.

Web Clipping Chrome Extension | React, JavaScript, HTML, CSS

- Used **JavaScript** and Chrome APIs to develop an extension that captures web content and sends it to a Django backend, reducing manual data collection time by 50%.
- Built an **HTML** parsing and filtering pipeline in Python to extract structured data and feed internal tools.
- Applied React and custom **CSS** to enhance UI interactions, improving team efficiency by 50%.

Technical Skills

Related Courses: Data Structures, Algorithms, Database Management, Machine Learning, Web Development, Artificial Intelligence, Computer Architecture, Software Methodology, Agile

Programming Languages: Python, JavaScript, TypeScript, C++, Java, Go, Solidity, SQL, HTML, CSS

Frameworks & Libraries: React, Next.js, Express.js, Vue, Spring Boot

Cloud & DevOps: AWS, Microsoft Azure, Docker, Kubernetes, Jenkins

Services: PostgreSQL, MySQL, MongoDB, Redis, RabbitMQ

Machine Learning: scikit-learn, PyTorch, TensorFlow, XGBoost

Testing & Tools: Git, Postman, Pytest, JUnit, Jira, Mocha