

Jay (CheHao) Liu

jhowliu@gmail.com | +61450457483 | [linkedin.com/in/jhowliu](https://www.linkedin.com/in/jhowliu)

SKILLS

Technical: Go, Node.js, Python, GCP & AWS, RabbitMQ, MySQL, Redis, Data Engineering

QA & Testing: Manual Testing, API Testing, Regression Testing, Functional Testing, Unit Testing

WORK EXPERIENCE

Freelance

Senior Backend Engineer

Taiwan

July 2023 – Oct 2025

- Built a RAG-based knowledge system, enabling secure document-based Q&A with automated ingestion, vector search, and per-user data isolation.
- Developed an translated service leveraging Large Language Models (LLM) that can fully translate the contents of PDF, DOCX, and other document formats.
- Developed and designed a CRM system that increased the company's revenue and improved customer retention.
- Developed and consulted garment manufacturing industry project for early start-up company.

AmazingTalker

Senior Backend Engineer

Taiwan

March 2021– May 2023

- Built a data warehouse and pipeline, enhancing data management and analytics, reducing report generation time by **90%**, saving **\$10K monthly**, and supported data-driven and decision-making to boost marketing performance.
- Built data platform which provided reusable APIs across teams in company, prevent tasks from recreating, then reduced **80%** working time on developing APIS related to data.
- Lead a 3-4 members engineering team, defining standards and guiding feature and data projects related to API development and project management.
- Improved teacher ranking algorithm by refactoring search means, reducing the API response speed by **50%**, then increasing engagement by **10%**, and increasing new registers by **5k** monthly.
- Refactoring the existing distributed lock system, replaced DB lock with more efficient Redis lock, reducing the latency time by **50%**.
- Designed and implemented the serverless services, leveraging AWS lambda and S3 to design the video processing pipeline, enabling reliable processing of **1,000+** videos per day.

WEI-PO CO., Ltd

Backend Engineer

Taiwan

Aug 2019 – March 2021

- Reduced the **80%** transaction latency time by replacing current transaction mechanisms with Rabbitmq.
- Applying EFK architecture for logging system, reduced **90%** latency time in application.
- Applying the Redis distributed lock, solved critical transactional issues in distributed system.
- Refactored Dockerfiles using multi-stage builds and implemented automated CI/CD pipelines, reducing image size by 80% and cutting manual deployment effort from 30 minutes to 5 minutes.

Pentium Network Technology Ltd.

Backend Engineer

Taiwan

Aug 2018 – Aug 2019

- Integrated various cloud assets including CDN, FQDN, etc., from diverse cloud platforms such as AWS, AliYun, Tencent, and GCP, ensuring optimal use of resources across multiple platforms.
- Designed and built a chatbot architecture integrated with an instant messaging application, providing user-friendly conversational interfaces.

- Developed a workflow framework to accelerate user tasks and automate processes, significantly improving user experience.
- Utilized Kafka as a broker for event-driven use cases, ensuring seamless data flow and real-time processing.

Lingtelli, Co., Ltd

Backend Engineer

Taiwan

April 2017 – June 2018

- Designed and implemented the company's chatbot product, enabling swift bot deployment to Facebook and Line platforms in a few simple steps.
- Developed a natural language understanding engine, enhancing the sophistication and functionality of the company's AI-based products.
- Built a scalable system to manage performance issues using auto-scaling and CloudWatch, ensuring service availability and responsiveness under varying loads.

EDUCATION

Queensland University of Technology

Master of Information Technology

Australia

Feb 2025 – Present

National Taiwan University of Science and Technology

Bachelor of Computer Science (GPA 3.92/4.0)

Taiwan

June 2011 – Jan 2015