# **Stephen Chung**

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# **EDUCATION**

The University of Nottingham

Nottingham, United Kingdom

MSc Computer Science (Artificial Intelligence) - Ongoing

September 2024 – September 2025

Dissertation: Agent-Based LLMs for Analysing Complex Features in Videos and Images

University of California, Davis

Davis, CA, USA

BA in Economics & Minor in Computer Science

September 2016 – July 2020

# **SKILLS**

Frontend/Mobile: Javascript; Typescript; Dart; Next.JS; React; AngularJS; Flutter

**Backend:** Python; Golang; C#; Flask; FastAPI; Go Gin; .NET **Databases:** PostgreSQL; MySQL; MongoDB; DynamoDB; Neo4j

**LLM**: LangChain; Atomic Agents; LlamaIndex; Hugging Face; Milvus DB; Qdrant

Certificate: AWS Certified Solutions Architect – Associate (issued by AWS in April 2021)

# **EXPERIENCE**

Kiitzu (Software House) Taipei, Taiwan

Full Stack Engineer

March – September 2024

- Architected and delivered a bilingual learning mobile application using Flutter, increasing user retention by 25% through seamless authentication with Firebase and targeted user insights via Google Analytics (live on Google PlayStore: <u>One-Forty</u>).
- Developed responsive web front-ends with Next.JS, ShadCn, and TailwindCSS, implementing JavaScript's Intersection Observer API to create scroll animations that improved user engagement metrics.
- Transformed company's AWS infrastructure from EC2 instances to ECS clusters, reducing monthly cloud costs by 30% while improving system scalability and deployment reliability.

# **Advanced Micro Devices (AMD)**

Taipei Taiwan

Full Stack Engineer

June 2023 - Jan 2024

- Spearheaded the front-end development of an automated GPU testing web interface for AMD's Navi Series GPUs, delivering a Next.JS solution with Material UI and Zustland to accelerate product testing cycles by 50%.
- Architected and deployed the cloud infrastructure essential for application deployment, enabling seamless scalability and reliability that expanded the user base to 2 other regional offices.
- Developed a Golang daemon service with GORM and Gin Web Framework to provide real-time monitoring for Windows test servers, enabling remote control for over 40+ Windows machines.

Trend Micro Taipei, Taiwan

Software Engineer September 2021 - June 2023
Delivered and maintained critical components of Trend Micro's business process management system handling 10,000+ monthly tickets, using a full-stack approach with C# .NET, Python and AngularJS.

- Designed and built a cross-regional OCR invoice scanning system using AWS Step Functions and Azure Form Recognizer, reducing manual data entry by 80%.
- Adopted Neo4j graph database to replace legacy permission routing systems, reducing query time by 25% while streamlining complex organizational hierarchy management and approval workflows.

### **SELLERLINX (Ecommerce SaaS Startup)**

Taipei, Taiwan

Backend Engineer

September 2020 – September 2021

- Built and maintained multiple core systems that directly enabled the successful platform launch, scaling to 200+ active business users within the first quarter.
- Developed AWS Step Functions-powered bulk listing feature for Shopee merchants, enabling 200+ product management simultaneously, saving hours of manual inventory management for clients.
- Created Lambda/SQS automated billing system that processed platform-wide invoices monthly, replacing 100% of manual platform fee accounting.

#### **PROJECTS**

#### Skincare GPT (https://github.com/spchung/skincare\_gpt)

**Personal Project** 

- Developed RAG application analyzing Sephora skincare database with OpenAI embeddings pipeline, enabling personalized product recommendations based on user needs.
- Implemented custom intent classification system with Qdrant vector database schema, optimizing search accuracy and query speed for different response types.

# Multi-Agent Debate (https://github.com/spchung/agent\_debate)

**University Project** 

- Designed LLM-powered platform enabling structured academic debates between AI agents with varying access to shared research knowledge base.
- Engineered Planning Agent architecture to extract and strategically select key arguments, alongside a RAG-powered Retrieval Agent for contextual responses.
- Developed Knowledge Graph Agent generating interconnected argument nodes with repetition prevention, with LogFire monitoring for performance analysis.