

JIMMY LIU

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PROFESSIONAL SUMMARY

Senior AI Engineer specializing in **LLM Agent Orchestration** and **RAG**. Architected high-performance automation workflows at MediaTek and Broadcom, driving **70% acceleration** in production. Expert in fine-tuning foundation models, deploying vector databases, and engineering asynchronous multi-agent systems for enterprise scale.

TECHNICAL SKILLS

- **Languages:** Python (Advanced), Verilog, Shell Scripting, C++
- **AI Frameworks:** PyTorch, TensorFlow, LangChain, Hugging Face
- **Infrastructure:** Linux, Git, Docker, LangSmith, RAG Pipelines
- **Competencies:** LLM Fine-tuning (LoRA/QLoRA), Deep Learning Optimization, Async Architecture

PROFESSIONAL EXPERIENCE

AI Architecture Engineer

Sep 2025 – Present

Homee.AI

Taipei, Taiwan

- **Architected** a high-performance, asynchronous Q&A system for buyer-facing Conversational AI, orchestrating 8 concurrent chat agents.
- **Implemented** advanced LLM tracking using **LangSmith**, enabling real-time monitoring of token usage, latency, and intent-recognition accuracy.
- **Resolved** critical data integrity bottlenecks related to map rendering and complex data pipelines, enhancing system fault tolerance.

EDA Software Engineer

2023 May – 2024 May

MediaTek

Hsinchu, Taiwan

- **Engineered** and curated LLM-based data preparation for semiconductor design, establishing code documentation standards for internal LLM training pipelines.
- **Maintained** Pearl-based automation tools for latest process, discovering critical issue and create in a measurable **50% acceleration**.

Impedance Engineer

2020 May – 2022 July

Broadcom

Hsinchu, Taiwan

- **Designed** and deployed a new automated workflow system using Python, reducing manual processing time by **70%**.
- **Optimized** the decap selection for WiFi PCB board through cross-functional collaboration (680+ components).

TECHNICAL PROJECTS

[LLM-Powered Data Retrieval Agent](#) | *Function Calling, RAG*

- Deployed an LLM solution utilizing **Function Calling** for targeted video search, implementing regional/keyword trend filtering and automated fetching.

[Multi-Agent Applicant Tracking System](#) | *Multi-Agent Systems*

- Orchestrated a multi-agent solution to extract candidate information into Excel and deployed an "Agent Factory" to autonomously analyze suitability.

[Real-Time Speech-to-Action System](#) | *Asyncio, API Control*

- Developed a concurrent **asyncio** architecture for real-time voice/expression detection, triggering VTube Studio APIs with low latency.

EDUCATION

Master's Degree: AI Innovation

Focus: LLM Confidence, Fine-tuning, RAG

National Yang Ming Chiao Tung University

Hsinchu, Taiwan

- **Thesis:** Designed and provide software simulations of AI models to confidence aware development.