# Jui-Chi Yu

Software, IT & AI Engineering
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## Education

**National Tsing Hua University** Sep 2025 - Expected 2027
*M.S. in Computer Science | GPA 3.75 / 4.3*

**National Dong Hwa University** 2021 - 2025
*B.S. in Computer Science and Information Engineering | GPA 4.03 / 4.5*

## Work Experience

**Micron Technology** Jul 2026 - Aug 2026
*IT Engineer Intern*

- Built an AI-assisted web interface for operational log investigation, connecting Copilot CLI to Splunk and read-only Oracle data through MCP tools.
- Added validated queries, bounded retrieval, audit trails, event timelines and evidence ranking.

**Airoha Technology Corp.** Jul 2025 - Sep 2025
*Tool Software Engineer Intern*

- Contributed automated Ethernet switch tests, completing 114 test cases covering Tx/Rx counters, port mirroring and multicast behavior.
- Investigated library/API issues with a mentor, integrated changes with Git and reported suspected defects to R&D.

## Selected Projects

**Evidence-Linked Memory and Document Retrieval** Oct 2026 - present
*Python, BM25, E5, RRF, PPR | Research in progress*

- Built a benchmark over 1,500 held-out public-data questions to compare keyword, dense, hybrid and graph retrieval with source attribution and latency profiling.
- Implemented versioned retrieval contracts and 20 functional checks; analyzed failure cases and retained the stronger baselines.

**Smart Medical Patrol Vehicle System**
*PostGIS, Neo4j, Docker | Team project*

- Designed and implemented a hybrid spatial/graph database architecture, containerized with Docker; selected by a Taichung clinic for a paid collaboration.

**Virtualization and Live Migration Lab** Oct 2026
*QEMU/KVM, NFS, QMP, Linux, Python, Bash | Academic project*

- Automated nested-KVM live migration for a running Linux workload; measured 14 ms of QEMU-reported VM downtime in one controlled lab run.
- Built reproducible CPU, network and VM/microVM benchmarks with Python and Bash.

## Technical Skills

**Languages:** Python, C, C++, Bash, Scala, Verilog
**AI and data:** PyTorch, LangChain, ChromaDB, RAG, BM25, E5, PostGIS, Neo4j
**Systems and tools:** Linux, Git, Docker, QEMU/KVM, Oracle, Splunk, MCP

## Awards and Languages

FPT 2026 Design Competition, Track B - 1st Prize (team); BRISK paper co-author.
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