

KOH JIN HONG, LUCAS

Master of Science Candidate, Electronic Engineering

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SUMMARY

Highly motivated Electronic Engineering Master's candidate (expected Aug 2025) with a robust foundation in networking (TCP/IP, 5G, IAB) and programming (Python, C++). Demonstrates practical experience from internships and academic projects in automating firmware testing (Docker, Jenkins), developing backend systems (Node.js, AWS, MongoDB), and researching distributed link scheduling for IAB Networks. Eager to apply expertise in system development, integration, and innovative technologies to a challenging engineering role.

EDUCATION

2023 - PRESENT

National Taipei University
of Technology

Master of Science, Electronic Engineering

- Authored graduate paper on Distributed Link Scheduling for IAB Networks, investigating Layer 2 5G architecture and implementing an optimized packet forwarding algorithm for half-duplex scenarios.
- Configured and deployed security tunnels and firewalls using FortiGate technology for Taiwan Space Agency projects.
- Served as Teaching Assistant for Master's level courses (Python, C, Algorithms), providing student support and assisting instructors with course materials.
- Resolved network connectivity issues (e.g., IP conflicts, configuration errors) as a part-time member of the university's computer networking centre.

2019 - 2023

National Taipei University
of Technology

Bachelor of Science, Electronic Engineering

- Developed a user login system server using Node.js, integrating it with a MongoDB database and utilizing Amazon Web Services (AWS) for backend infrastructure.
- Designed and implemented a visual novel game prototype using PyQt6, developing the core Python-based architecture.

EXPERIENCE

2022 - 2023

Sierra Wireless

Junior Firmware Engineer (Intern)

- Engineered an automated firmware testing testbed using Docker and Jenkins, automating daily validation tests to run nightly, significantly streamlining the validation workflow.
- Executed comprehensive validation and regression testing on new firmware releases; identified, documented, and reported bugs to ensure quality prior to deployment.

SKILLS

- **Programming Languages:** Python, C, C++, JavaScript (Node.js)
- **Networking & Protocols:** TCP/IP, 5G Architecture Concepts, IAB Networks, Fortinet (FortiGate)
- **Development Tools & Platforms:** Git, Linux, Jenkins, Docker, Jira, AWS
- **Databases:** MongoDB
- **Languages:** Chinese (Fluent), English (Proficient, TOEIC: 825)