KEN (JIA-QUAN) YU

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Software Engineer · Computer Vision · Android Camera · NZ Citizen — Full AU Work Rights

WORK EXPERIENCE

Camera Software Engineer, MediaTek Inc. *Sept 2023 – Sept 2025*

- **Android Camera Driver Owner** — Led development of camera driver features including image warping, face detection, and segmentation pipelines; supported 10+ image and video output formats.
- **LLM-Powered Log Analysis Tool** — Designed and implemented an LLM-based Android log parsing system that converts system logs into human-readable reports; adopted by 10+ ISP modules, **reducing debugging time by 40%**.
- **IC Verification Automation** — Built a C code generation framework to automate IC validation workflows; **reduced manual verification effort by 85%** and adoption across a 50-engineer team.

Research Assistant — Computer Vision, NTU System Optimization Lab *Mar 2020 – Oct 2020*

- Multi-robot SLAM(Visual Odom + RTABMAP + LiDAR) achieved **50 mm localization precision**
- Led 4-person graduate team to deliver autonomous 140 kg payload transport system on schedule

Robotic Software Engineer, Advanced Robotics CO., LTD. *May 2018 – Mar 2019*

- Multi-sensor localization (LiDAR + fiducial markers + encoders) + elevator control firmware; deployed in 4 cities, navigating 250+ hotel rooms across 8 floors

KEY PROJECTS

HoneyHub · SwiftUI iOS app · github.com/KenYu910645/mushroomHunter *2026*

- iOS community app for Pikmin Bloom players — mushroom raid coordination, postcard trading & in-app currency system; SwiftUI frontend, Firebase backend, agentic AI integration

MapleStory AutoBot · github.com/KenYu910645/MapleStoryAutoLevelUp *2025*

- Real-time OpenCV screen-state detection pipeline + PySide6 GUI; production Python tooling with broad open-source community adoption; **260+ GitHub stars / 120+ forks**

EDUCATION

M.S. Communication Engineering, National Taiwan University (NTU) *June 2023*

- *Thesis: Image Recognition in Driving Scene: Monocular 3D Object Detection and Image Segmentation*
- GPA 4.23 / 4.3 · CVGIP 2023 Honorable Mention

B.S. Mechanical Engineering, NTU *June 2017*

TECHNICAL SKILLS

Camera & Image: Android camera ISP, image warping, multi-format image/video processing

ML / CV: PyTorch, OpenCV, YOLO, 3D object detection, panoptic segmentation, depth estimation

Languages: Python, C/C++ (advanced), SwiftUI / Swift (iOS), JavaScript / Node.js (familiar)

Tools & Cloud: Firebase, Linux, Git, REST APIs, Claude Code, Codex, Agentic AI tools