

Aidan Wu

(346) 564-5959 | aw180@rice.edu | www.linkedin.com/in/kiu-chun-aidan-wu | github.com/aidankcwu

EDUCATION

Rice University – School of Engineering and Computing

Expected May 2028

B.S. Computer Science, B.S. Operations Research, minor in Data Science

Houston, Texas

GPA: 4.00/4.00 | **Relevant Coursework:** DSA, Real Analysis, Linear Algebra, Discrete Mathematics, Multivariable Calculus, Statistics for Data Science, Optimization & Graph Theory, Program Design, Optimization for AI, Computer Organization

Activities: Rice Data Science, Rice Machine Learning, Rice INFORMS (OR Club), Rice Quantitative Fund, Rice Chess Club

EXPERIENCE

OptimaLab - Undergraduate Researcher

Aug 2026 - Present

- Joining Prof. Anastasios Kyrillidis's group at Rice to research low-bit quantization effects on LLM reasoning behavior and token efficiency.

iQON Solutions – Software Engineer, Hong Kong

Aug 2026 – Oct 2026

- Fine-tuned a YOLO object detector on 11.7K labeled symbols, raising held-out recall from 21% to 94%. Built an evaluation harness to benchmark post-processing changes, including IoU-based NMS and OCR text masking.
- Built a blueprint comparison feature which involves a grounded LLM query pipeline with constrained entity resolution and SQL-computed answers, rendered as multi-drawing highlight overlays (FastAPI, PostgreSQL, React).

Invest21 – AI Software Engineering Intern, New York (Remote)

May 2026 – Aug 2026

- Designed the curated data layer serving 18 planned AI agents, with retrieval over Postgres + pgvector (hybrid vector/keyword search, parent-child chunking, HNSW); built an eval harness to measure tangible improvement from specific prompt and config changes.
- Built an idempotent, resumable ETL pipeline (Python, Postgres) pulling daily prices and sector data for 50+ tickers from third-party API.
- Spearheaded design of a reusable LLM agent benchmarking tool and built its pre-flight verification stage, led to a 25% accuracy lift.
- Reduced benchmark runtime from 1 hour to under 10 minutes by rewriting the runner's serial loop with bounded async concurrency.

Yamagami Lab – Undergraduate Researcher

Jan 2026 – May 2026

- Investigated data augmentation for multimodal EMG and IMU time-series to improve few-shot gesture recognition using meta-learning.
- Developed and integrated time-series augmentation pipelines, including stochastic noise injection, temporal and amplitude warping, and frequency-domain decomposition, into meta-learning training and evaluation frameworks.

PROJECTS

Self-Hosted Agent Fleet

Jun 2026 – Present

- Built a 24/7 multi-agent system that automates recurring bottlenecks in my life (sorting news, following up with contacts, surfacing research papers) that compounds over time as agents write back everything they learn.
- Architected a scalable system with a thin orchestrator that takes my commands, spawns headless agents, and gates irreversible actions behind approval; agents share one git-backed knowledge base, and each is a self-contained folder so new ones can be added easily.

Retrieval-Augmented Obsidian Knowledge Base

Feb 2026 – Apr 2026

- Built a two-stage RAG pipeline (embedding retrieval + cross-encoder reranking) with LlamaIndex for semantic link and tag suggestion.
- Designed an end-to-end OCR-to-Markdown document pipeline using GPT-4o-mini vision for handwritten text, LaTeX math, and diagrams.
- Shipped as an open-source CLI tool with a FastAPI REST backend, automated file watcher, and YAML-based config for local deployment.

AWARDS

HackRice 16 Winner – Healthcare Track

Sep 2026

- Built the real-time capture and voice pipeline (Swift/iOS, Python, Gemini vision, ElevenLabs TTS) for a Ray-Ban Meta smart-glasses health tracker. Won 1st in the Healthcare Track out of 500+ participants and 120+ teams.

IMC Prosperity 4 – Top 5% of 22,000+ teams

May 2026

- 16-day virtual quantitative trading challenge focused on algorithmic trading and strategy optimization in simulated markets.

Claude Hackathon Winner – Innovation Track

Apr 2026

- Built a multi-agent proposal review system in 5 hours, designed to surface blind spots in business proposals; 100+ participants.

Hong Kong Scholarship for Excellence Scheme (HKSES), HKSAR Government

Aug 2025

- Chosen as one of 50 undergraduate students in Hong Kong to win a scholarship valued at HKD 300,000 (USD 38.5k) per year.

SKILLS & INTERESTS

Languages: Python, SQL, R, Java, LaTeX | **Libraries:** pandas, NumPy, scikit-learn, PyTorch, TensorFlow, LlamaIndex, FastAPI, asyncio

Tools: Postgres, pgvector, SQLite, Docker, Git, Linux, Jupyter, Claude Code (subagents, hooks, skills, loops), Cursor, MCP

Interests: Competitive chess (top 50 in Hong Kong by rating), poker, marathon running, cardistry

Spoken: English, Mandarin, Cantonese, Spanish