

Daniel Wu

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EDUCATION

University of California, Los Angeles (UCLA)

Los Angeles, CA

B.S. in Computer Science | **GPA: 4.0/4.0**

Sep. 2025 – Jun. 2029 (Expected)

- **The SAF Scholarship:** Recipient of a prestigious full-ride merit scholarship from the Singapore Armed Forces, awarded to fewer than 5 individuals annually to develop future senior military leaders.
- **Relevant Coursework:** Data Structures & Algorithms, Computer Organization, Linear Algebra, Multivariable Calculus, Differential Equations, Statistics.

Hwa Chong Institution

Singapore

GCE A-Levels | **Rank Points: 90/90**

Jan. 2018 – Dec. 2023

EXPERIENCE

LA CTF (UCLA ACM Cybersecurity)

Los Angeles, CA

Infrastructure Organizer

Sep. 2025 – Present

- Architected and shipped GCP-based competition infrastructure (Cloud Run frontend, GKE challenge cluster, Cloud SQL, Redis on GCE) supporting thousands of concurrent participants in a major student-run CTF.
- Built autoscaling Kubernetes deployment with **Traefik** ingress, **cert-manager** + Cloudflare DNS-01 for wildcard TLS, and **KubeIP** for static node addressing; hardened firewall rules and network tags to prevent pre-CTF challenge-subdomain leakage.
- Deployed CI/CD on **GitHub Actions** via GCP Workload Identity Federation (eliminating long-lived service-account keys); maintained custom forks of **rCTF**, **rCDS**, and **cyber-instancer** powering per-team challenge instances.

Digital & Intelligence Service (DIS), Singapore Armed Forces

Singapore

Cyber Threat Intelligence Analyst

Jan. 2024 – Aug. 2025

- Designed and shipped an OSINT-to-TTP automation pipeline (Python + LLM-assisted parsing) ingesting **50+ daily sources** and mapping adversary behaviors across the full attack lifecycle into ATT&CK-aligned heat maps and temporal views.
- Reduced analyst review time from a half-day workflow to **under 5 minutes (>95% reduction)**; pipeline deployed operationally and adopted department-wide.
- Engineered fault-tolerant crawlers, structured-output validators, and QA layers; ran comparative evaluations to maintain precision/recall as source coverage scaled.

Tenopy (Ed-Tech Startup)

Singapore

Full-Stack Developer

2021 – 2022

- Shipped the team's online classroom platform end-to-end across **React** and **Node.js**; owned architecture from wireframes to production and developed the core live-classroom workflow.
- Built responsive, accessible UI components engineered for reliability under live virtual-classroom load.

PROJECTS

Computer Vision for Surgical Tool Verification | *Python, TensorFlow, OpenCV*

2022 – 2023

- Co-authored published research with **Dr. Tang Kok Zuea (NUS)** on a deep-learning vision system for automated surgical instrument verification.
- Reduced verification time by **98%** versus the manual baseline; awarded **Bronze** at the Singapore Science & Engineering Fair (SSEF).

EatBah | *Swift, SwiftUI, Firebase, MapKit*

2022

- Prototyped an iOS marketplace connecting food vendors with nearby consumers to reduce surplus food waste.
- **2nd Runner-up**, SUSS SBIZ Business Plan Competition.

Self-Sorting Recycling Bin | *Arduino, Sensor Fusion*

2023

- Designed and built a sensor-fusion-driven prototype bin to reduce contamination in recyclables at the point of disposal.
- **Top 5**, NTU Young Innovator Challenge.

LEADERSHIP & AWARDS

Officer Cadet School (OCS) – Digital and Intelligence Service (DIS)

Singapore

Sword of Honour (Valedictorian) & Best in Knowledge (Cybersecurity)

Jan. 2024 – Dec. 2024

- **Awarded Sword of Honour** (top graduate) and **Best in Knowledge** for outstanding technical performance over a 9-month officer training program.
- Led a platoon of 80+ cadets and facilitated training across **Computer Networks, Linux/OS Internals, ICS/OT, and Penetration Testing**.

Hwa Chong Infocomm & Robotics Society (Cybersecurity Wing)

Singapore

Challenge Designer

2018 – 2023

- Placed **Top 10 of 4,300+ participants** at **Brainhack CTF** (2022, 2023); published write-ups across forensics, web, and OSINT.
- Designed challenges for **Siebersec CTF** (500+ participants; supported by DIS, DSO, Smart Nation).

Project Integrate – Community Leadership

Singapore

Project Head

2020 – 2021

- Led a migrant-worker inclusion initiative; awarded **Best Project** among 100+ cohort projects.
- Architected and deployed the project's official website to drive fundraising and awareness.

TECHNICAL SKILLS

Languages: Python, C++, JavaScript/TypeScript, Swift, SQL, Bash

Frameworks: React, Node.js, Flask, FastAPI, SwiftUI, Firebase/Firestore

Cloud & DevOps: GCP (Cloud Run, GKE, Cloud SQL), Kubernetes, Docker, Helm, GitHub Actions, Traefik, cert-manager

Developer Tools: Git, Linux (CLI), VS Code, Xcode

Security & Networking: Cryptography, Wireshark, Scapy, nmap, Volatility, Penetration Testing, ICS/OT

Data & ML: TensorFlow, OpenCV, pandas, NumPy, scikit-learn