

Tan Hiok Kuek

Curious Computer Science Student

[Mail](#) | [Linkedin](#) | [Github](#)

EDUCATION

National University of Singapore

Bachelor of Computing in Computer Science (Cumulative GPA 4.64)

Aug 2024 - May 2027

- Ngee Ann Kongsi Scholarship for AY 25/26

WORK EXPERIENCE

Research Assistant – NUS-NCS Cybersecurity Lab

Aug 2024 – Aug 2025

- Architected **high-concurrency phishing detection API** serving **10,000+** users, implementing auto-scaling infrastructure and security protocols with **Terraform IAC**
- Reduced cost of cloud infrastructure by **50%** through scalable architecture and automation using **Cloudwatch Metrics**.
- Engineering efforts above were published on [PhishIntel](#) which was accepted at **World Wide Web Conference 2025**
- Developed [DistilBERT classifier](#) with the **transformers library** achieving **94%+** accuracy on contemporary phishing datasets with advanced preprocessing.
- Built cross-platform **browser extension** bundled with a **native host**, that supports **on-premise** email phishing detection.
- Developed multiple dashboards and visualisation tools with **JavaScript** and **React**.

Frontend Developer Intern – Singapore Press Holdings

Nov 2023 – Feb 2024

- Developed responsive landing pages using **React** from UI/UX wireframes, deployed across **40+ publications**.
- Implemented unit tests with **Jest** and **React Testing Library**, improving code quality and reliability.
- Developed admin dashboard using **Backstage**, enabling users to submit issues and track progress.

Deputy Head Ops and Security Officer – Singapore Armed Forces

Jan 2023 – Nov 2024

- Spearheaded the planning of training exercises for a unit of 300 personnel.
- Secretary to the Commanding Officer, managing communications between the various key officers of the unit.
- Received multiple awards including best trainee, sword of merit and commanding officer coin.

PROJECT EXPERIENCE

Agentic Social Media Content Generator – Experimenting with Agentic AI!

Sep 2025

- Agentic AI pipeline using **LangSmith** tracing, **OpenAI GPT-4**, and **Anthropic Claude** that automatically scrapes Reddit data, performs sentiment analysis, and generates Family Guy-style comedy scripts with comprehensive workflow monitoring

HomeLab – Personal Server

Jul 2025

- Repurposed old laptop to a linux server using Open Media Vault
- **Docker** for container management, hosting multiple services including a personal **cloud storage**
- Exposed services securely to the internet using **Cloudflare Tunnel**

Tanbucha – E-commerce Platform

May 2025

tanbucha.com

- Built responsive e-commerce platform with **Next.js** and **TypeScript**, implementing mobile-first design patterns.
- Integrated **Stripe API** for payment processing and **EmailJS** for automated customer notifications.
- Achieved **50+ organic visitors** and **100+ sales** through SEO optimization and performance tuning.

AWARDS

NUS Hackers Hack&Roll (1st)

SplashAwards 2023 (1st)

SUTD WhatTheHacks 2023 (1st)

CloudHacks 2023 (1st)

GroundZero 2024 (Finals)

NUS CHS Case Comp (Finals)

SKILLS & INTERESTS

Languages: Python · Java · Javascript/TypeScript/HTML/CSS (TypeScript) · SQL

Tools & Frameworks: React/Nextjs/Plasmo · Flask · Openai · Langchain/LangSmith · Docker · Langchain/Smith · Postgres

Certifications: [AWS Certified Solutions Architect - Associate \(SAA-C03\)](#)

Interests: Applied AI · Machine Learning · Full-Stack Development · Cloud Computing