Tan Hiok Kuek

Singaporean Software Engineer (Full Stack)

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EDUCATION

National University of Singapore — Aug 2024 - Jun 2028 (expected)

Bachelor of Computing in Computer Science (Cumulative GPA 4.64)

WORK EXPERIENCE

Software Engineering Intern – *NUS-NCS Cybersecurity Lab* — Aug. 2024 – Present

- Designed and deployed a scalable URL Phishing Detection API on AWS, utilizing EC2, Auto Scaling Groups, Application Load Balancer, and Route 53; adopted by over **10,000 users**.
- Co-authored a research paper on phishing detection, accepted at the **World Wide Web Conference 2025**.
- Migrated AWS infrastructure to Terraform, enhancing code maintainability and reducing deployment time by **30%**.
- Developed interactive web applications with Next.js for algorithm visualization, leveraging Redux, Tailwind CSS, ShadCN, GraphViz, and D3.js.
- Built a browser extension using Plasmo that functions as an email client, implementing OAuth2 authentication and integrating with the Outlook API.
- Fine-tuned a DistilBERT classifier and bundled it with a local LLM as a native host to detect phishing emails directly from the extension.

Frontend Engineer Intern – *Singapore Press Holdings* — Nov. 2023 – Feb. 2024

- Contributed to the platform team during a major migration from legacy systems to modern web technologies such as React and AWS.
- Developed responsive landing pages using TypeScript, React, and Tailwind CSS from UI/UX wireframes, deployed across 40+ publications.
- Implemented unit tests with Jest and React Testing Library, improving code quality and reliability.
- Designed and built REST APIs for the admin dashboard using Node.js, Express, and MongoDB, enabling users to submit issues and track progress.

PROJECT EXPERIENCE

Awards

Classes

Skills & Interests

Development Tools: AWS (Certified Solution Architect) · Terraform · React · Next.js · Plasmo · Spring Boot · Docker

Languages: TypeScript · JavaScript · HTML5 · CSS · Java · Python · SQL