





Sean Foo

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PROFESSIONAL SUMMARY

Results-driven software engineer with hands-on experience from internships at leading organizations such as Tencent, OCBC, and Razer. Brings a robust background in software development, artificial intelligence, and cybersecurity, along with proven expertise in Python, Go, and JavaScript. Demonstrated ability to deliver innovative, scalable solutions through the creation of an open source project. Poised to leverage technical expertise and drive impactful solutions in a full-time role beginning in 2026.

EDUCATION

Nanyang Technological University <i>B.Comp., Computer Science</i> <i>Clubs and Societies: Student Entrepreneurship Program, Garage@EEE, NTU Open Source Society</i>	Dec 2025
Ngee Ann Polytechnic <i>Diploma in Network Systems and Security</i> <i>Awarded the Westcon Group Prize for scoring top in Cloud Architecture and Security</i>	May 2019 GPA: 3.67/4.0

FINAL YEAR PROJECT

Generative AI (GPT) and Quant Finance for Wealth Management <ul style="list-style-type: none">Developing a AI-powered web application that integrates quantitative finance techniques with natural language processing to democratize financial insights for the retail investor.Assessing portfolio risk, constructs tailored investment portfolios and deliver real-time financial alerts in response to market and macroeconomic events.

EXPERIENCE

Tencent <i>Algorithm Software Engineer Intern</i> <ul style="list-style-type: none">Contributed to the development of an API for text translations leveraging Large Language Models (LLMs), optimizing model inference to improve contextual accuracy and support millions of daily requests.Crafted a regex-based feature for a text categorization micro-service, enhancing topic classification accuracy.Engineered backend concurrency mechanisms using goroutines, reducing endpoint latencies by 22%, improving request throughput, and enhancing server-side efficiency.Worked with senior engineers to design and refine prompts, improving LLM contextual accuracy and mitigating injection vulnerabilities for robust performance across diverse inputs.	Aug 2024 – Dec 2024
Oversea-Chinese Banking Corporation (OCBC) <i>Software Engineer Intern</i> <ul style="list-style-type: none">Designed and developed an interactive quantum circuit sandbox using React and Flask incorporating a Python code editor and drag-and-drop quantum gates, utilized the qiskit library for quantum simulations.Engineered a proof-of-concept for a virtual banking avatar, using Next.js and APIs from Microsoft Azure.	May 2024 – Aug 2024
SquareX <i>Software Engineer Intern</i> <ul style="list-style-type: none">Contributed to product feature development and research at a Sequoia-backed cyber-security startup.Conducted in-depth research on advanced malware obfuscation techniques and successfully developed a web application to demonstrate bypassing industry-standard web security gateways in a live environment.Built privileged backend processes in Rust with native Windows APIs, enhancing secure system-level network security features for advanced threat defense.Developed and deployed multiple server-less backend functions on Google Cloud Platform (GCP), used dynamic programming algorithms to match program identifiers, supporting daily consumer client usage at scale.Recognized for strong performance and offered a return internship and full-time offer.	Jan 2024 – Apr 2024
Razer <i>Software Engineer Intern</i> <ul style="list-style-type: none">Led the development of a data residency proxy using Go and Gin, and applied clean architecture design principles.Involved in developing an API endpoint to feed AI-powered product recommendations to millions of Razer users.Automated various API testing with Python and pytest, resulting in a 13% decrease in time to deployment.	Jul 2023 – Dec 2023
Accenture <i>Deployment Analyst Intern</i> <ul style="list-style-type: none">Liaised with various teams to plan and ensure successful application deployments.	May 2023 – Jul 2023
Uniad <i>Co-founder & Software Engineer</i> <ul style="list-style-type: none">Co-founded and launched Uniad, a free superapp in Singapore connecting students with top PSLE, O-Level, and A-Level tutors and tuition centres.Collaborated in a 4-person team to design and ship key features: tutor profiles and listings, direct messaging, personalized profile analytics, and video courses enrollment and management tools.Built the cross-platform mobile app and website using Flutter, Next.js, and Firebase; scaled to 4,000+ registered users.Led development of shared backend infrastructure across mobile and web using serverless functions (Cloud Functions for Firebase).Supported by major university entrepreneurship programs including NUS Enterprise, NTU SEP, NTU Garage@EEE, and SMU BIG.Delivered multiple pitches to local and international investors, showcasing platform vision and growth strategy.	Dec 2022 – Mar 2025
Seagate Technology <i>Software Engineer Intern</i> <ul style="list-style-type: none">Programmed a Python tool with Tkinter to automate execution of test cases for over 200 employees.Led the development of a Python tool automating test script categorization, achieving 100% accuracy in requirements matching through advanced algorithmic analysis with abstract syntax trees.	May 2022 – July 2022

SKILLS

Languages: Python, Go, JavaScript/TypeScript, Dart, HTML/CSS, SQL, L^AT_EX
Tools: Git/GitHub, Docker, VS Code, Postman
Frameworks: React, Next, Node.js, Flutter, Firebase
Others: GCP/AWS, Object-Oriented Programming, Data Structures & Algorithms, RESTful API Development

PROJECTS

Centaurion Logistics API | *Next.js, Firebase, Python, Google Cloud Platform, RESTful API development*

- Designed and built both the frontend website using Next.js and the asynchronous API server using Python and Quart for a logistics company based in Singapore.
- Implemented user account creation, API key generation, and secure API access for seamless developer integration.
- Automated data collection by developing and deploying web scraping tools tailored to logistics datasets.

Firebase Authentication Backup Extension | *Firebase, TypeScript, Google Cloud Platform*

- Designed and developed an open-source Firebase Extension with Node.js and TypeScript to automate scheduled backups of Firebase Authentication user data to Google Cloud Storage, installed in over 100 Firebase projects globally.
- Implemented CI/CD via GitHub actions to automate the testing, building, and deployment processes, ensuring continuous integration and delivery in each version of the project.

xss-vulnerable-chat-webapp | *Flask, Bootstrap, HTML, JavaScript, CSS*

- Built a vulnerable live chat web application to demonstrate cross-site scripting (XSS) attacks.

FindParkingSG | *Python*

- Owner and sole developer of a Telegram chatbot that provides information about nearby carparks and relevant parking information in Singapore, with over 500 registered users to date.