

LEE JIA QUAN

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SUMMARY

Final-year Computer Science undergraduate at the National University of Singapore, specialising in Software Engineering and Computer Security. Passionate about building reliable and secure software that solves practical problems, with experience across both frontend and backend development, cloud systems, autonomous software workflows and cryptographic backgrounds. Known to take initiative and lead the team towards collaboration with stakeholders throughout the development process. Seeking an early-career Software Engineering role where I am able to learn, grow, and contribute towards the ever-growing tech industry.

WORK EXPERIENCE

Software Engineer Intern

Jun 2026 - Dec 2026

Synapse

- Contributed to back-end services supporting the aggregation of Singapore’s public healthcare applications under the enhanced HealthHub platform.
- Supported the project through final development, performance testing, release preparation, and production deployment activities.
- Worked within a mature software development lifecycle, collaborating with developers, Business Analysts, Quality Engineers under Agile framework.
- Handled live production data updates through approved cloud deployment pipelines.

Technology Intern

Sep 2020 - Feb 2021

DSO National Laboratories

- Researched and analysed cryptographic primitives used in Key Derivation Functions (KDFs), focusing on their security properties and suitability for hardware implementation.
- Designed and implemented KDF architectures on Field Programmable Gate Arrays (FPGAs) to optimize performance and security in hardware-based cryptographic applications.

EDUCATION

Bachelor of Computing in Computer Science

Aug 2024 - June 2027

National University of Singapore, School of Computing

- GPA: 4.5/5.0, Focus Area: Computer Security, Software Engineering
- Obtained the Certificate of Distinction in the Computer Security Focus Area as of 7 July 2025

Bachelor of Computing in Information Security

Aug 2023 - Jul 2024

National University of Singapore, School of Computing

PROJECTS

PeerPrep – Full-Stack Developer (Agile School Project)

Jan 2026 - May 2026

React, Next.js, Firebase, Docker, AWS, Redis, Terraform, TypeScript, Python

- Developed a full-stack web application using React and FastAPI, following microservice architecture principles within an agile Scrum environment.
- Created Figma prototypes and wire-frames, accelerating front-end hand-off by integrating design workflows.
- Helped to implement Firebase Authentication and Cloud Firestore to handle secure user sign-in and real-time data persistence.
- Integrated Generative AI capabilities through engineered prompts to deliver real-time user feedback and guidance via an interactive ChatBox feature.

Agentic Research on Chess Bot (Personal Project)

May 2026 - Jun 2026

Python, Flask, C#/.NET 8, Docker, React, TypeScript, Render, Stockfish

- Developed a browser-based chess engine with Flask back-end deployed on Render, implementing legal move generation, search algorithms, and evaluation heuristics.
- Implemented an iterative bench-marking process that pitted new engine versions against previous versions or Stockfish baselines to measure the impact of heuristic and move-selection strategies.
- Built an autonomous research harness that generates engine variants, evaluates them against fixed Stockfish test suites, and retains only validated improvements.

SKILLS

Languages	Javascript, Typescript, Python, Java, Kotlin, Rust, C/C++/C#, SQL, HTML, CSS, VHDL
Frameworks	React, Next.js, Flask, FastAPI, Unity
Developer Tools	Git, AzureDevOps, Docker, Android Studio, AMPPS, Figma, Postman
Cloud Technologies	AWS, Firebase, Supabase, Vercel, Render