

Gautham Kailash

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EDUCATION

National University of Singapore

Expected May 2026

BSc. Computer Science + NUSC | GPA: 4.62/5.00 (First Class Honours)

Singapore

- **Awards/Teaching:** [VIP Grant](#) (\$10,000) | TA for CS2030S Programming Methodology II, CS2105 Computer Networks
- **Leadership:** VP of Pre-100 Club, Faculty Coordinator for NUSC Mentorship Programme, Co-Founder of [VoilaAI](#)
- **Courses:** Computer Networks, Operating Systems, Parallel and Concurrent Programming, Distributed Algorithms

EXPERIENCE

Squarepoint Capital

Aug. 2025 – Dec. 2025

Incoming Software Engineer Intern (C++)

Singapore

Goldman Sachs

May 2025 – Aug. 2025

Software Engineer Intern

Singapore

- Worked with the Margin Technology team (post-trade transactions) within Global Banking and Markets.

AI Centre for Education Technologies

May 2024 – Aug. 2024

Software Engineer Intern

Singapore

- Designed a high-performance MERN backend for a code assessment platform, supporting over 800 concurrent users.
- Optimised backend algorithms and database queries, achieving a 25% reduction in system load times.
- Implemented JSON/CSV export, file uploads, and email reporting, reducing data management time by 30%.

Triple One Global

May 2023 – Aug. 2023

Software Engineer Intern

Jakarta, Indonesia

- Created a hiring website and CMS using Next.js, tRPC, and Postgres, enhancing recruitment and improving engagement.

NUS FinTech Lab

Aug. 2022 – Apr. 2023

Frontend Engineer Intern

Singapore

- Developed new NUS FinTech Lab website, enabling seamless navigation and a 40% reduction in page load times.

PROJECTS

Lox Interpreter | <https://github.com/kailashgautham/lox-interpreter> | C++

- Developed a language interpreter in C++.

KaithanOS | <https://github.com/kaithanos/kaithanos> | C, Assembly

- Developed and implemented an OS bootloader in C, ensuring efficient initial hardware and system software loading.
- Integrated the FAT file system into the OS, enabling disk read/write capabilities and supporting FAT subdirectories.
- Engineered interrupt handling with IDT/GDT and optimised memory management for enhanced performance.

Concurrent Systems | <https://github.com/kailashgautham/concurrent-systems> | C++, Go, Rust

- **C++, Go:** Developed a high-performance exchange matching engine, handling up to 100 threads and 4 million orders.
- **Rust:** Created a multi-client TCP server with Tokio for async task management, achieving a 30x speedup.

Kepler | <https://github.com/kailashgautham/kepler> | Java, React, PostgreSQL, Apache Flink

- Developed a simulation trading platform.

InterviewAce | <https://github.com/janniver/interviewace> | React, Python, Flask

- Developed an AI-powered platform with live coding, real-time speech, and video feedback to simulate interviews.

Eepy | <https://github.com/janniver/eepy> | Swift, SwiftUI

- Developed a SwiftUI iOS alarm app featuring interactive mini-games to ensure users are fully awake.

TECHNICAL SKILLS

- **Languages:** C++, C#, Rust, Go, Java, Python, C, JavaScript, TypeScript, SQL
- **Frameworks:** CUDA, OpenMP, Spring, React, Node, Express, Nest
- **Developer Tools:** Git, Vim, Unix, Bash