

Mayank Pallai

mayankpallai@gmail.com | GitHub | LinkedIn | Website

EDUCATION

Nanyang Technological University, Singapore

Aug 2021 – Jun 2025

- B.Eng. in *Electrical and Electronic Engineering*, Specialization: Computer Engineering
- Relevant Coursework: Data Structures and Algorithms, Computer Networks, Computer Architecture, Databases, Software Engineering, Web Application Design, Cybersecurity, Data Science and AI, AI and Data Mining

WORK EXPERIENCE

Sprinklr

Software Engineer

Sep 2025 – Present

India

- Building SDK within the Care Cloud product using **ReactJS**, **TypeScript**, **GraphQL** for client customization capabilities.

INTERNSHIP EXPERIENCE

Sprinklr

Software Engineer Intern

Jun 2025 – Aug 2025

India

- Engineered an internal regression testing tool leveraging **Babel AST** parsers, **TypeScript Compiler API** to parse **ReactJS** codebases, generating dependency graphs, achieving **90%+** precision in regression tracing.
- Architected a high performance system capable of processing over **10K+** files, and **60K+** import statements.
- Created a **CI/CD** risk-assessment pipeline integrating **GitLab** workflows, vector embeddings and similarity algorithms to detect historical patterns reducing post-deployment regressions by **25%**.

FileAI

Full-Stack Engineer Intern

Jun 2024 – Aug 2024

Singapore

- Reduced serverless **AWS Lambda** infrastructural costs by **15%** through optimised function execution and resource allocation. Integrated **Bedrock API** to scale backend operations with **LLMs**.
- Constructed responsive export rule preview component in **ReactJS** improving user interface clarity by **30%** as measured in client onboarding surveys.
- Implemented **Python** post-processors to deliver tailored outputs for **8** key clients post OCR model processing.

Switchco Labs

Software Engineer Intern

Jan 2024 – May 2024

Singapore

- Optimized and deployed features on the perp DEX trading engine in **Golang**, increasing transaction throughput by **12%** and managing **150** open positions across **50+** markets concurrently.
- Developed **20 CLI** commands for efficient blockchain transactions and queries using **gRPCs** (Protobufs).
- Facilitated **PostgreSQL** migrations for frequently accessed data to **Redis**, reducing query response time by **25%**.

PROJECTS

Student Management Portal [GitHub](#)

- Programmed a web-based platform as part of Final Year Project for managing events for **800+ MSc students** using **Golang**, **ReactJS**, **Tailwind CSS**, **Supabase**, and **PostgreSQL** and **Docker** for server deployment.

Blockchain Implementation [GitHub](#)

- Engineered **Golang**-based blockchain with **3-node** distributed-system architecture, leveraging **UNIX** environments and using the UTXO model for wallet creation, address validation, and secure transactions.

Concurrent Servers [GitHub](#)

- Built **C** and **Python** based concurrent-server system featuring multithreaded and asynchronous models.
- Used **POSIX** threads, network sockets for multiple clients, optimizing performance through non-blocking I/O and thread pooling.

SKILLS

- Programming: C/C++, Typescript, Javascript, Golang, Python, PostgreSQL, NoSQL, HTML, CSS
- Frameworks & Libraries: React.js, Next.js, Tailwind CSS
- Technologies: Git, GitHub, Github Actions, Redis, Docker, AWS, gRPC (Protobufs), RESTful APIs, GraphQL, Microservices, FastAPI, CI/CD, Supabase, Postman
- Languages: Fluent Proficiency in English, Hindi, Odia

LEADERSHIP

NTU Social Impact Catalyst, *Vice-President* (Executive-Committee)

Aug 2023 – May 2024

IEEE NTU Student Branch, *Welfare Director* (Main-Committee)

Aug 2022 – Jul 2023