ABISHTAKAN SIVACHANDRATHEVAN

FINAL YEAR SOFTWARE ENGINEERING STUDENT

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Final year Software Engineering student specializing in building end-to-end web and mobile applications from concept to deployment. Adept at bridging the gap between responsive frontends (Next.js, Flutter) and robust, containerized backends (Node.js, PostgreSQL) to deliver high-performance digital solutions. Proven track record of architecting scalable systems, migrating cloud infrastructure, and optimizing performance. Actively seeking a software engineering role to architect high-concurrency systems and scale data-driven applications.

● TECHNICAL SKILLS

Languages:	Java • Python • JavaScript • Dart • SQL
Backend Frameworks:	Node.js • Express.js • Nest.js • Python (FastAPI, Flask)
Frontend Frameworks:	React • Next.js • Tailwind CSS • Flutter
Databases:	PostgreSQL • MySQL • MongoDB • Firebase
Tools & Cloud:	Docker • AWS • Git • WebSockets • Postman • Figma

● PROFESSIONAL EXPERIENCE

Full-Stack Developer (Freelance) | QR Restaurant Order Management System   Jan 2026 – Present

- Designed and deployed a multi-tenant, QR-enabled restaurant ordering platform using **Nest.js**, **Next.js**, and **PostgreSQL**, deployed via **Docker**.
- Implemented **WebSockets** to establish real-time order synchronization between the customer-facing digital menu and the backend administrative dashboard with **sub-second latency**.
- Architected a secure **Role-Based Access Control (RBAC)** system to isolate data and privileges across superadmin, admin, and customer tiers.

Full-Stack Developer (Freelance) | NHSL Plastic Surgery Unit   Nov 2025 – Feb 2026

- Engineered a comprehensive Clinic Management System to digitize and entirely replace manual, paper-based processes for patient onboarding and clinical records, securely managing over **1,000+ patient records**.
- Built the end-to-end architecture using **Node.js**, **Next.js**, and **PostgreSQL**, containerizing the application with **Docker** for reliable deployment.
- Integrated automated **WhatsApp notifications** for patients and developed a robust surgery scheduling module to optimize clinic workflow, saving approximately **6-8 hours** of manual administrative work per week.

Software Engineering Intern | Vetstoria S.L. Private Limited   Jun 2024 – May 2025

- Developed MVPs and proof-of-concepts for the core PHP team to evaluate and integrate modern technologies into the existing technology stack.
- Architected and developed a cloud-native email sending workflow using **AWS (SES, Lambda, SQS, SNS, and S3)**, optimizing performance to handle **20,000+ emails per day** and providing comprehensive diagram documentation.
- Migrated legacy services to the **Laravel** framework, significantly improving system maintainability and increasing overall performance.
- Created and maintained **Python scripts** for Bitbucket Pull Request (PR) analysis and evaluated AI-powered PR review tools to streamline code review.

● SELECTED PROJECTS

Hybrid Quantum-Classical Neural Network
Sep 2025 – Present

Final Year Academic Research

- Architected a machine learning pipeline to predict glioblastoma survival rates by integrating multimodal clinical and genomic data.
- Processed and analyzed massive datasets, including TCGA data, to train **hybrid quantum-classical models** achieving more than **80% accuracy**.
- Developed the core predictive architecture using **Python**, **PyTorch**, and **PennyLane**, focusing on high-accuracy data segmentation and quantum circuit integration.

Ticket Booking Web Application
Nov 2025 – Jan 2026

Freelance

- Developed a secure, full-stack web application for managing private event registrations and digital ticket distribution.
- Built the backend and API structure using **Node.js** to handle over **500 concurrent booking requests** and prevent ticket overselling.
- Implemented a highly responsive frontend interface with **Next.js** and managed transaction and user data securely using **PostgreSQL**.

FoodLens: AI Food Allergy Detection App
Sep 2023 – Apr 2024

Second Year Group Project

- Collaborated to develop an AI-powered mobile application designed to scan, detect potential food allergens, and suggest safe dietary alternatives.
- Integrated a machine learning backend built with **Python** and **Flask** with a cross-platform mobile frontend developed in **Flutter**.
- Designed the data flow using **Node.js**, managing extensive food datasets and user allergy profiles with **MongoDB** and **Firebase**.

Hindu FM: Online Radio Mobile App
Jan 2023 – Jun 2023

Hindu College Colombo

- Engineered a dedicated mobile application to broadcast live online radio streams for the school's community of over **10,000+ listeners**.
- Developed the mobile client using **Flutter** for continuous audio streaming, while building an admin web dashboard using **React**.
- Utilized **Firebase** for backend routing, real-time database management, and ensuring stable listener connections during peak broadcast hours.

● EDUCATION

BEng (Hons) Software Engineering (Level 6)
University of Westminster, UK (Informatics Institute of Technology)

Sep 2022 – Present

Current Grade: **First Class**
Key Modules: Database Systems (95%), Computer Systems Fundamentals (95%), Object Oriented Programming (90%), Second Year Group Project (82%)

Foundation Certificate in Higher Education
Informatics Institute of Technology

Jan 2022 – Aug 2022

Awarded with **Distinction**.

G.C.E. Ordinary Level
Hindu College Colombo

2018

Results: 7A, 1B, 1C.

● AWARDS

- **First Place**, International Problem Solving Hackathon – Organized by University of Westminster, UK (2024).
- **First Place**, IIT Cutting Edge – Secured first place for the "BeSafe" disaster management application (2022).

● LEADERSHIP

- **Senior Prefect**, Hindu College Colombo (2020 – 2021).
- **President**, Tamil Union of Hindu College Colombo (2020 – 2021).
- **Secretary**, ICT Union of Hindu College Colombo (2020 – 2021).

● REFEREES

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