Deemantha Gunasekara

IT Undergraduate | Aspiring Software Engineer
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LinkedIn | GitHub | Portfolio

Professional Summary

Second-year IT undergraduate at the University of Moratuwa with a strong passion for software development and problem-solving. Actively building a solid foundation in full-stack web technologies by developing practical, hands-on projects. Eager to challenge myself, continuously learn from experienced software engineers, and adapt to modern industry practices. Seeking a Software Engineering Internship where I can apply my growing skills to real-world projects, embrace new challenges, and develop into a well-rounded engineer.

Education

BSc (Hons) Information Technology and Management, *University of Moratuwa* 2025 – Present
- Second year Undegraduate. Current GPA - **3.8/4.0**

G.C.E. Advanced Level, Commerce Stream, 2021 – 2023
Ananda College, Colombo 10 —
Achieved **3 A** passes in Accounting, ICT and Economics.

Projects

SiteTrace — Multi-Tenant Operational SaaS & Mobile Platform-Github 07/2026 – Present

- Built a multi-tenant platform (React 19, NestJS, PostgreSQL) that digitizes industrial field operations with dynamic form configuration and role-based operational dashboards.
- Zero-Hardware IoT & Offline Sync: Engineered a React Native client enabling worker inspections and autonomous stationed phone sensing, backed by local SQLite caching and resilient retry sync for low-connectivity environments.
- Secure Architecture & Real-Time Rules: Implemented strict tenant data separation using PostgreSQL Row-Level Security (RLS) and an event-driven automation engine for real-time anomaly detection and alert dispatching.

Cloud-Native Microservices & CI/CD Platform - Github 10/2026 – 11/2026

- Built a containerized microservices platform (Node.js, Express, PostgreSQL) unified behind an NGINX reverse-proxy gateway.
- Orchestrated multi-container services with Docker Compose using persistent named volumes and automated health checks.
- Deployed to Kubernetes using Helm charts with liveness and readiness probes for zero-downtime rolling updates.
- Configured Prometheus and Grafana for live metrics monitoring, backed by automated GitHub Actions CI/CD pipelines.
- Technologies: Docker, Kubernetes, Helm, NGINX, Node.js, PostgreSQL, Prometheus, Grafana, GitHub Actions

KickBots – Microcontroller-Based Robot Football System - Github 07/2025 – 05/2026

- Designed and built an Arduino-based robot football system in which robots are driven in real time through handheld wireless controllers.
- Implemented wireless controller-to-robot communication using nRF24L01 radio modules.
- Developed embedded C/C++ control logic for motor control, sensor input handling and actuator operation.
- Integrated stepper motors, sensors and actuators into a working hardware platform, including wiring, testing and debugging.
- Technologies: Arduino, C/C++, nRF24L01, Stepper Motors, Embedded Systems

Technical Skills

- Languages: Java, TypeScript, JavaScript, C/C++, PHP, SQL, HTML5, CSS3
- Frontend & Backend: React, Next.js, Node.js, Express.js, Spring Boot, Tailwind CSS
- Cloud & DevOps: Docker, AWS (Pipelines & Basics), Git, GitHub, Linux,
- Databases: PostgreSQL, MySQL, MongoDB
- Soft Skills - Problem Solving ,Teamwork , Communication

Professional Experience

Third Space Global, **Online Mathematics Tutor(UK Curriculum) —** 01/2025 – 08/2025

- Delivered 1-on-1 virtual STEM and mathematics tutoring to students in the United Kingdom.
- Developed strong analytical communication and problem-solving techniques..

Courses & Certifications

Introduction to DevOps, *IBM* 05/2026
Arduino Bootcamp: Learning Through Projects, *Packt* 12/2025
Machine Learning Introduction, *IBM* 11/2025
C Intermediate, *Sololearn* 11/2025
Web Design for Beginners, *CODL, University of Moratuwa* 04/2025
Java Application Development Using Java SE, *University of Colombo School of Computing* 05/2024

Interests

Software Development | DevOps | Cloud Computing | Programming | AI/ML Technologies

References

Mr. Hemal Perera, Site Reliability Engineer, *SyscoLABS* — 0775675969

Mrs. Waruni Ranasinghe, Assistant Accountant, *Motha Confectionery* — 072 546 4755