Nuwani Fonseka

Software Engineering Undergraduate

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About Me

Final-year Software Engineering undergraduate at SLIIT with hands-on experience in full-stack web application development across frontend, backend, databases, and cloud deployments. Detail-oriented, well-organized, and accountable, with a proactive approach to planning and meeting tight deadlines in team environments.

Technical Skills

Backend: Node.js, Express.js, REST API Design, JWT Authentication, ASP.NET Core (.NET 8)

Frontend: React.js, Next.js, React Native, Tailwind CSS, HTML, CSS, JavaScript

Databases: MongoDB, MySQL, PostgreSQL (Supabase-hosted), SQLite, Firebase

DevOps & CI/CD: Docker, Kubernetes (Minikube), GitHub Actions, Google Cloud Run

Testing & Quality: JUnit, Selenium, Manual Testing, UI/UX Testing

Programming Languages: JavaScript, Java, C#, Python

Tools & IDEs: Git, GitHub, Visual Studio Code, Visual Studio, Android Studio

Work Experience

Kode Tech (Pvt) Ltd   **Sri Lanka**
Software Engineer Intern (Full-time, Hybrid)   *Jul 2024–Feb 2025*

- Worked in a fast-paced, client-driven environment and contributed to features across multiple client projects **(11+ deliverables)** across e-commerce and banking domains.
- **Backend:** Developed user management systems using Node.js and Laravel; implemented CRUD operations and database migrations.
- **Frontend:** Built responsive interfaces using HTML, CSS, and JavaScript for WordPress, Shopify, and custom apps.
- **Quality Assurance:** Conducted functional, UI/UX, and exploratory testing ensuring release readiness.
- **Data Integration:** Migrated a banking chatbot from a relational SQL database to PostgreSQL.

Projects

Final Year Research Project (Group project)   **SLIIT**
Akura – Dyslexia-Aware Automated Sinhala Essay Grading System   *2025–Present*

- Ongoing undergraduate research on a **dyslexia-aware automated essay grading system** for Sinhala language assessments.
- **Responsible for the Bias-Aware Scoring Engine**, focusing on fairness-aware semantic evaluation rather than surface-level spelling accuracy.
- Trained and evaluated baseline NLP models to support fairness-aware essay scoring and bias analysis.
- Implemented bias analysis and mitigation logic to reduce unfair penalization of dyslexic writing patterns.
- **Technologies:** Python, Machine Learning, NLP, Fairness-Aware AI
- **GitHub:** Frontend | Backend (Bias-Aware Engine)
- **Live Demo:** akura-qa.vercel.app

Enterprise Application Development (Group Project) — SLIIT
EV Charging Station Booking & Management System — *Jul–Oct 2025*

- **Implemented the Charging Station domain**, including station management, slot configuration, and **real-time availability recalculation logic**.
- Built responsive **Backoffice web interfaces** using **React.js and Tailwind CSS** for station onboarding, operator assignment, and booking monitoring.
- Implemented **RESTful APIs** for station lifecycle management (create, update, activate/deactivate) with **JWT-based authentication**.
- Integrated native Android features with offline-friendly **SQLite caching** and supported real-time booking updates.
- Deployed backend services on **Google Cloud Platform**.
- **Technologies:** React.js, Tailwind CSS, Android (Kotlin), ASP.NET Core (C#), MongoDB, SQLite, JWT, Google Cloud
- **Links:** Live | Web | API | Android

Personal Full-Stack Project — Independent
LeaveFlow – Leave Management System — *2026*

- Built a **production-ready, cloud-native leave management system** with role-based workflows and audit logging.
- Implemented secure authentication and authorization using **JWT**.
- Developed backend services using **ASP.NET Core (.NET 8)** and deployed via **Docker** and **Google Cloud Run**.
- **Technologies:** React.js, ASP.NET Core (.NET 8), PostgreSQL, Supabase, JWT, Docker, GitHub Actions
- **Links:** Live | GitHub

Microservices Architecture (Group Project) — SLIIT
FoodFlix – Cloud-Native Food Ordering Platform — *May 2025*

- Developed a scalable food ordering and delivery platform using a **microservices-based architecture**.
- Implemented the **food ordering UI**, including menu categories, searching, filtering, and individual restaurant pages using **React.js and Tailwind CSS**.
- Implemented secure **Stripe payment integration** for order checkout.
- Developed **email notification workflows** using **SendGrid** for order confirmations and status updates.
- Containerized services using **Docker** and deployed using **Kubernetes (Minikube)**.
- **Technologies:** Node.js, Express.js, MongoDB, React.js, Tailwind CSS, Stripe, SendGrid, Docker, Kubernetes
- **GitHub:** github.com/NuwaniFonseka/FoodFlix

Group Project
Shopping Eye – Smart Shopping Mall Navigation System — *2024*

- Contributed to a shopping mall navigation system; implemented shop management and access control features.
- **Implemented CRUD operations for shopping mall stores.**
- Developed **role-based access control** for shop management (**admin, store owner, user**).
- Integrated shop management APIs with the **React.js frontend**.
- **Technologies:** MongoDB, Express.js, React.js, Node.js
- **GitHub:** github.com/NuwaniFonseka/Shopping-Eye

Group Project
Zero Waste – Smart Garbage Management System — *2024*

- Contributed to a smart garbage management system for tracking and managing waste collection operations.
- **Implemented waste collection tracking logic**, including recording collection history and updating collection statuses (**pending, collected**).
- Developed backend controllers for **collection centers and collectors**, enabling assignment, updates, and status monitoring.
- **Technologies:** MongoDB, Express.js, React.js, Node.js
- **GitHub:** github.com/NuwaniFonseka/Zero-Waste

Open Source Contributions

Women in FOSS Developer Assignment — SLIIT / Women in FOSS
Customizable Portfolio Template — *Aug 2025*

- Open-source, customizable portfolio template with dark theme and EmailJS integration.
- **Tech:** React.js, Tailwind CSS, Vite, EmailJS   **GitHub:** Repo   **Live:** Demo

Open Source Contribution — Women in FOSS
Women in FOSS Official Website — *2025–Present*

- ○ Contributing to the Home section using Next.js App Router.
- ○ **Tech:** Next.js, Tailwind CSS   **GitHub:** Repo

Educational Background

Sri Lanka Institute of Information Technology   **Malabe, Sri Lanka**
BSc Software Engineering   *Oct 2022–Present*
Academic Performance:
- ○ Weighted GPA: 3.42 / 4.0
- ○ **Dean's List: Year 4, Semester 1** (Semester GPA: 3.7)

St. Peter's College Colombo 04 – Negombo Branch   **Negombo, Sri Lanka**
Secondary Education   *2008–2022*
G.C.E. Advanced Level (2022) – English Medium
- ○ Combined Mathematics, Physics, Chemistry: Simple Pass

Language Proficiency

IELTS   *2022*
- ○ Reading 8.5, Listening 7.5, Speaking 7.5, Writing 6.5

Soft Skills

Leadership & Initiative: Batch Representative since Year 1. Proactive in identifying and resolving blockers in group projects while maintaining clear team coordination.

Communication & Collaboration: Active member of the **Women in FOSS Club**; contributed to open-source projects through cross-team collaboration and discussions.

Attention to Detail: Recognized during internship for strong attention to detail and assigned QA responsibilities alongside development work.

Problem Solving: Resolved integration issues and supported teams through effective communication and structured problem-solving.

Adaptability: Quickly adapted to new technologies such as Docker, Kubernetes, and cloud platforms under tight timelines.

Time Management: Balanced academic coursework, research, internship, and multiple projects with consistent performance.

Interests & Extracurricular Activities

Professional Engagement: Participated in industry-led API and GenAI events and technical workshops.

Interests: Keyboard player since age 13, interested in music, art, fashion and recreational badminton.

References

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