Nirmani Umasha

SOFTWARE ENGINEER

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Websites and Social Links

Portfolio : https://portfolio-nirmani-umasha.vercel.app/
Linked In : http://www.linkedin.com/in/nirmani-umasha-49634a285
GitHub : https://github.com/sachininirmani

Summary

Final-year BSc (Hons) in Computer Science undergraduate at the University of Colombo School of Computing (UCSC) with hands-on experience in enterprise software development, full-stack web applications, and backend API systems. Proficient in Java, Spring Boot, Angular, React, and Python, with a strong foundation in object-oriented programming, data structures, algorithms, architecture and design patterns. Experienced in CI/CD pipelines, framework upgrades with strong problem-solving and communication skills, and a keen interest in software engineering and AI engineering.

Experience

Software Engineer Intern, GTN Technologies (Pvt) Ltd, Colombo, Sri Lanka

Nov 2024 — Apr 2025

‣ Configured and maintained development environments using Apache Zookeeper, Spring Boot (backend), and Angular (frontend) while working on large-scale enterprise codebases.

‣ Developed and enhanced the GTN Invest Monitoring System, implementing configuration editing features and improving overall system functionality and maintainability.

‣ Led Angular framework upgrades (v17 → v18 → v19), managing major dependency updates, resolving breaking changes, and ensuring application stability.

‣ Executed manual and automated testing, fixed QA-reported defects, completed Change Requests (CRs) and bug fixes, and optimized codebases to meet coding standards and inspection rules.

‣ Stabilized Playwright test automation for CI/CD pipelines, updated API documentation (Stoplight), and deployed changes using automated pipelines.

‣ Collaborated effectively with cross-functional teams in an Agile development environment, contributing to production-ready releases, improving system reliability, and ensuring high-quality software delivery across enterprise applications.

Education

, University of Colombo School of Computing (UCSC), Colombo 07

2022 — 2026

Bachelor of Science Honours in Computer Science - (GPA : 3.5652 / 4.00)
‣ Awarded Director's List for academic excellence (Year 3, Semester 1 – AY 2024)

, St. Paul's Girls' School – Milagiriya

‣ A/L - Maths , Physics, ICT - (Z-Score: 1.5917)
‣ O/L - results: 9A

Languages

English

Sinhala

Projects

Word Learner Web Application (https://word-learner-nsxk.vercel.app)
- Designed and developed a full-stack web application for vocabulary learning, delivering a daily Word of the Day with meanings, usage examples, and multilingual support, using modern web technologies.
- Implemented automated workflows using GitHub Actions, integrated browser push notifications, and ensured persistent data storage with Vercel KV (Redis)
- Deployed the application on Vercel with environment-based configuration, focusing on performance optimization, scalability, reliability, and user engagement.

WellnessVision *(University 3rd Year Project)*
- Developed a smart wellness web platform connecting Health Professionals, Volunteers, and the public to promote mental and physical well-being through a centralized digital solution.
- Implemented frontend features using React, TypeScript, CSS, and Bootstrap, focusing on responsive UI design and usability.
- Developed the backend using Java and Spring Boot, following a client–server architecture, and utilized AWS S3 buckets for secure storage of application assets and data.

Construct Hub *(University 2nd Year Project)*
- Built a web-based service platform connecting clients with workers, heavy-duty vehicles, and rental equipment.
- Developed a responsive frontend using HTML, JavaScript, and CSS, focusing on usability and clean UI design.
- Implemented the backend using PHP, following the MVC architecture to ensure structured, maintainable, and scalable application logic.

Research (ongoing)

EyeSpeakSinhala – Eye-Controlled Sinhala Virtual Keyboard
(https://github.com/sachininirmani/EyespeakSinhala)
- Conducting research on an eye-tracking-based Sinhala virtual keyboard using a Tobii eye tracker to improve accessibility and text-entry efficiency.
- Implemented dwell, dwell free, hybrid interaction, optimized keyboard layouts, and multi-stage vowel/diacritic prediction. and Integrated real-time gaze processing to enhance typing speed and usability for assistive technology applications.

Technical Skills

- **Programming Languages** .... Java, JavaScript, TypeScript, Python, C / C++
- **Frontend Development** .... Angular, React, HTML, CSS
- **Backend Development** .... Spring Boot, Node.js, RESTful APIs, MVC Architecture
- **Databases & Data Stores** .... MySQL, SQL, SQLite, Vercel KV (Redis)
- **DevOps & CI/CD** .... Git, GitHub Actions, CI/CD Pipelines, GitLab, Playwright Test Automation
- **Cloud & Deployment** .... Vercel, AWS (Fundamentals)
- **Tools & IDEs** .... Postman, VS Code, IntelliJ IDEA, PyCharm, MySQL Workbench
- **Documentation** .... API Documentation (Stoplight)
- **Soft Skills** .... Adaptability, Problem-Solving, Communication, Teamwork

Certifications and Licenses

‣ Java: Data Structures – LinkedIn Learning
‣ Java Object-Oriented Programming – LinkedIn Learning
‣ Programming Foundations: Algorithms – LinkedIn Learning
‣ SQL Essential Training – LinkedIn Learning
‣ Learning Spring with Spring Boot – LinkedIn Learning
‣ AWS Essential Training for Developers – LinkedIn Learning

References

Reference available upon request