

Nirmani Umasha

software engineer



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WEBSITES AND SOCIAL LINKS

Portfolio <https://portfolio-nirmani-umash-a.vercel.app>

Linked In : <http://www.linkedin.com/in/nirma-ni-umasha-49634a285>

GitHub : <https://github.com/sachininirma-ni>

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

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

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.

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.

LANGUAGES

English				
Sinhala				

REFERENCES

Reference available upon request

Auth Lab – Secure Authentication Web Application (<https://auth-lab-tau.vercel.app>)

- Designed and developed a cloud-based authentication sandbox to demonstrate the inner workings of modern authentication systems, using Supabase Auth for secure user sign-up and login.
- Implemented JWT-based session management, protected routes, and token-based access control, while applying cloud security best practices and environment-based configuration in a production-style deployment.

WellnessVision (University 3rd Year Project)
(<https://github.com/WellnessVision>)

- 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