Samudra De Silva

samudradeshan@gmail.com | +94 701433107
github.com/SamudraDSilva | linkedin.com/in/samudradesilva
samudradesilva.me

Summary

Computer Science final-year undergraduate specializing in backend development, full-stack web applications, and IoT systems. Experienced in building secure, scalable REST APIs using Node.js and Express.js, with additional hands-on work in real-time systems, game development, cloud infrastructure, and AI. Self-driven learner with strengths in leadership, teamwork, problem solving, time management, and public relations.

Skills

- **Languages:** Python, Java, JavaScript, GDScript
- **Frontend:** React, HTML, CSS
- **Backend:** Node.js, Express.js, REST APIs, WebSockets
- **Databases:** MySQL, MongoDB
- **Tools & Platforms:** Git, Jira, Figma, Postman, Azure, Linux
- **Other:** Godot, Unity, MQTT, Arduino

Projects

Full-Stack Crowdfunding Platform | MERN | View ↗   *2025*

- Implemented JWT authentication with RBAC, bcrypt password hashing, and middleware-protected REST API routes.
- Built campaign lifecycle management, admin dashboard, activity audit logs, and automated donor badge/ranking system.
- Applied modular architecture, input validation, and environment-based configuration for production readiness.

RitzClothing B2B E-Commerce Platform Development | MERN | View ↗   *2025*

- Built a B2B bulk ordering system with inquiry-based order management and quick reorder from order history.
- Developed a product catalog with advanced filtering, sorting, client reviews, and wishlist features.
- Implemented real-time supplier-buyer chat using raw WebSockets for instant negotiation without third-party dependencies.
- Created an Admin Dashboard for managing products, orders, customers, and reviews, with business report generation.

Disaster Monitoring & Safe Exit Path Navigation | IoT Project | View ↗   *2025*

- Developed a weighted A* algorithm for dynamic, risk-aware pathfinding based on real-time hazard data.
- Built a Unity 3D application to simulate building evacuation scenarios and visualize live sensor data for hazard spread and exit routes.
- Integrated hardware sensors (ESP32, flame, water, smoke, RFID) with responsive LED floor guidance paths.
- Designed a node-based scalable building map architecture to support dynamic floor layouts.
- Integrated MQTT protocol for low-latency, reliable communication between sensors and the system.

Game Development Project – Coin Ceylon (Pvt) Ltd   *2025 - Present*

- Designing game mechanics, implementing core logic, level design, and storyboarding for a culturally inspired 2D game based on Sri Lankan folklore.
- Building all game logic using Godot Engine and GDScript.
- Collaborating with designers, developers and stakeholders to deliver features aligned with project milestones.

  Developed for Coin Ceylon (Pvt) Ltd

Secure Deployment of OpenClaw with Telegram Automation *2026*

- Deployed OpenClaw on an Azure VM (Debian 13) with zero public internet exposure using Tailscale VPN and strict firewall rules.
- Secured the infrastructure with token-based gateway authentication, restricted port forwarding, and sandboxed integrations.
- Built a custom Telegram agent for real-time GitHub monitoring, commit detection, code change analysis, and contribution statistics.

Education

Wayamba University of Sri Lanka

BSc. (Hons) in Computer Science *2022 - Present*

Relevant Coursework:
Software Engineering, Data Structures & Algorithms, Database Management, Distributed & Cloud Computing, Artificial Intelligence, Data Mining, Parallel Computing, Computer Architecture, Operating Systems, Image Processing, Linear Algebra, Probability & Statistics

Honors and Awards

- Excellence Performance – ENIGMA TRIALS v4.0 ACISS, Wayamba University of Sri Lanka *2024*
- Best Performing Project Coordinator – 2025 IEEE Young Professionals Sri Lanka *2026*

Offices Held & Volunteering

- Design Coordinator – IEEE LetsTalk *2025 - 2026*
- Editor – IEEE Student Branch of Wayamba University of Sri Lanka *2025 - 2026*
- Junior Committee Member – IEEE Student Branch of Wayamba University of Sri Lanka *2024 - 2025*
- Youth Mentor – STEMUP Educational Foundation *2024 - 2025*
- Videographer & Video Editor – WAYOSCOPE *2024*
- Programming Lead – Wayaxtreme 3.0 *2024*
- Technical Contributor – ASBIRES 2025 Research Symposium *2026*

References

Dr.(Mrs.) B. Munasinghe
Senior Lecturer (Grade I)
Department of Computing & Information Systems
Faculty of Applied Sciences
Wayamba University of Sri Lanka
+94 773864495
bhagya@wyb.ac.lk

Mr. J.R.K.C. Jayakody
Senior Lecturer (Grade II)
Department of Computing & Information Systems
Faculty of Applied Sciences
Wayamba University of Sri Lanka
+94 770210834
kithsirij@wyb.ac.lk