

Ranga Nirmal Priyadarshana

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Profile

Computer Science & Engineering undergraduate at the University of Moratuwa with a focus on software engineering and building scalable systems. Open-source contributor with merged PRs in widely used developer tools. Experienced in designing multi-service architectures, writing clean and testable code, and setting up production infrastructure. Enjoy solving hard technical problems and shipping reliable software in team environments.

Education

BSc (Hons) in Computer Science and Engineering *University of Moratuwa, Sri Lanka* | 2024 – Present

G.C.E Advanced Level (Physical Science Stream) *Royal College, Colombo 07* | 2022

- Results: 3 'A' Passes (Combined Maths, Physics, Chemistry) | Z-Score: 2.4452 | Island Rank: 298

G.C.E Ordinary Level *Royal College, Colombo 07* | 2019

- Results: 9 'A' Passes

Projects

Adept | Developer Analytics Platform | [GitHub](#) (Ongoing)

- Building a developer analytics platform that pulls data from GitHub and Jira REST APIs to calculate DORA metrics, flag risky pull requests, and send automated alerts using a React/TypeScript frontend, a Java/Spring Boot backend, and a Python/FastAPI data processing service with PostgreSQL as the primary data store.
- Containerizing services with Docker, managing Flyway migrations, automating CI via GitHub Actions, and running Testcontainers integration tests.

OnTime | Real-Time Public Transport Tracking System | [GitHub](#)

- Provisioned infrastructure with Terraform and deployed and managed a real-time public transport tracking system on DigitalOcean using Kubernetes and Helm, with Kong API Gateway for REST and WebSocket traffic routing, Keycloak (OIDC) for centralized authentication, and Redis for caching.
- Built the observability stack with Prometheus and Grafana for monitoring, alerting, and dashboarding, and automated deployments through GitHub Actions CI/CD pipelines.

B Trust | Microbanking System | [GitHub](#)

- Built a web-based microbanking platform using Node.js and REST APIs with role-based access control for Administrators, Managers, and Field Agents, secured with JWT authentication, audit logging, and account state validation.
- Automated interest calculations for savings and fixed deposits using PostgreSQL stored procedures, triggers, and node-cron scheduled jobs, with Docker for local development.

Open Source Contributions

Homebrew (*Ruby*)

- Fixed bugs and improved performance in the Homebrew codebase, used by millions on macOS and Linux.
- Redesigned parallel download cancellation by replacing pool.kill with a cooperative cancellation model using a thread-safe AtomicBoolean flag, and propagating Interrupt signals to active download threads to kill orphaned curl subprocesses and clean up partial files from the cache. ([PR #21526](#), [PR #22201](#))
- Fixed resource leaks during cleanup by ensuring file handles are properly closed to improve stability and reliability. ([PR #21611](#))

Oh My Zsh (*Shell*)

- Refactored the ls option helper in the theme utility scripts to process flags individually, improving clarity while keeping backward compatibility. ([PR #13556](#))

Other

Blueberry | VS Code & Zed Theme | [VS Code](#) | [Zed](#)

- Designed and published a dark color theme for VS Code and Zed, optimized for readability, reduced eye strain, and clear syntax highlighting. Contributed the Zed theme to the official extensions registry. ([PR #6375](#))

Pixelflip | Client - Side Image Processor | [GitHub](#)

- Built a browser-based image editor using HTML5 Canvas and JavaScript. Implemented edge detection, blur, grayscale, cropping, rotation, and multi-format export.

Technical Skills

- **Main Tech Stack:** React, TypeScript, Spring Boot, PostgreSQL, Docker, Git
- **Languages:** Java, C, C++, Python, Ruby, Rust, TypeScript, JavaScript, SQL, Shell Scripting
- **Frameworks & Web:** React, Spring Boot, Node.js, FastAPI, REST APIs, WebSockets
- **Databases & Middleware:** PostgreSQL, Flyway, Redis
- **DevOps, Cloud & Tools:** Docker, Kubernetes, Helm, GitHub Actions, Terraform, Kong, Keycloak, Prometheus, Grafana

Certifications

- **AWS Academy Graduate:** Microservices and CI/CD Pipeline Builder - Training Badge | [Credly](#)
- **AWS Academy Graduate:** Cloud Foundations - Training Badge | [Credly](#)

Volunteering & Activities

- **Event Committee Member | ADScAI** | 2026 - Handled workshop registrations and managed crowd control during the main event.
- **Program Committee Member | CSE Hit the Grounds** | 2025 - Managed score tracking, tournament standings, and match officiating across sports events.
- **Organizing Committee Member | RoboGames 25.26** | 2026 - Assisted in constructing the battle arena and supported overall competition setup.
- **Organizing Committee Member | CSE Careers Fair** | 2026 - Supported floor operations and event execution on the career fair day.

Affiliations

- **Activity Committee Member** | Computer Science & Engineering Student Society (CSESS) | 2026 – Present
- **Member** | Old Royalists Engineering Professionals' Association (OREPA) | 2023 – Present

Experience

Quality Assurance – Manufacturing *Swisstek Aluminium Limited* | 2023 – 2024

- Supported quality control activities by reviewing product quality and recording issues according to company procedures and standards.
- Worked with engineering and production teams to track quality issues and support improvements in the manufacturing process.

References

Prof. Dulani Meedeniya

Professor

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