

# JANITH RANASINGHE

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## SUMMARY

Software Engineer with a B.Sc. in Physics and Electronics from the University of Kelaniya, currently working at Sistena and CodeSight Global. Skilled in the MERN stack, React.js, and Node.js, with academic project experience in IoT and machine learning. Holds a Diploma in Digital Marketing, combining technical expertise with creative problem-solving.

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## WORK EXPERIENCE

**Software Engineer at Sistena** **February 2025- Present**

- Primarily responsible for Frontend development of feature implementations, ensuring responsive and clean designs.
- Designed and implemented test automation for web applications.
- Contributed to backend development, including architectural decisions.

**Software Engineer Intern at CodeSight** **July 2024 - February 2025**

- Developed Wordpress websites
  - Created Database architecture for backend.
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## EDUCATION

**Bachelor of Science in Physics and Electronics** **July 2021 - July 2024**

University of Kelaniya, Kelaniya, Sri Lanka

- GPA - 3.23
- University Colors in Scrabble (2023)
- University Colors in Scrabble (2022)

**Diploma in Digital Marketing (DDM)** **June 2021 - June 2022**

Sri Lanka Institute of Marketing (SLIM)

**Advanced Level** **January 2006 - August 2019**

Dharmaraja College, Kandy

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## PROJECTS

**Intelligent Pedestrian Signal Light System | Final year research project**

ResearchGate Publication - Python

- Developed an intelligent traffic management system integrating adaptive signal timers, real-time pedestrian detection (CNN-based), weather monitoring, and IoT components. Implemented on Raspberry Pi 4 Model B for enhanced processing.
- Achieved 80% pedestrian detection accuracy using a CNN model trained on a custom-labelled dataset.
- Reduced average pedestrian crossing time to 18.5 seconds through adaptive signal timing in a real-world case study.
- Upgraded from Arduino to Raspberry Pi 4 Model B, enabling faster real-time processing and multi-input stream handling.

- Developed an IoT-enabled framework for seamless communication between sensors, cameras, and signal controllers.
- Implemented violation deterrence mechanisms (sirens/alerts) to improve pedestrian safety and compliance.

### **Scrabble Timer**

#### Github Repository - Flutter

- Developed a Scrabble clock application for competitive players worldwide.
- Implemented chess-clock-style timing with intuitive start, pause, and reset functionality.
- Integrated penalty scoring system with automatic disqualifications for exceeding penalty limit.
- Enhanced user experience for fair and efficient gameplay.

### **Zero-Budget Home Server (Self-Hosted Infrastructure)**

#### Article Link

- Self hosted home server with n8n automation and Linux system administration

### **Browser Extension - Email allocator**

#### Github Link

- Developed a Browser extension that visually categorizes Gmail emails using custom labels and colors. Built with JavaScript, with persistent storage and dynamic email detection.

### **Website for a Book Shop | Full Stack Web project**

#### Demo Website

- Functional Website for a Book Shop as the final project for Web Development course module.

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## **ADDITIONAL INFORMATION**

### **Technical Skills:**

- Javascript / Typescript
- Reactjs
- Tailwind
- Git Version Control
- Nodejs
- Nextjs
- Azure/ AWS
- Docker
- Jest
- Flutter
- MERN stack
- n8n
- Automation
- GCP

**Languages:** English, Sinhala

### **Certifications:**

- Oracle Cloud Infrastructure 2025 AI Foundations Associate (1Z0-1122-25)
- Docker Foundations Professional Certificate
- AWS Cloud Quest: Cloud Practitioner
- GitHub Foundations
- Postman API Fundamentals Student Expert
- Developing Back-End Apps with Node.js and Express
- Classify Images with TensorFlow on Google Cloud
- Introduction to Large Language Models