

ISHAN KUMARASINGHE

COMPUTER ENGINEERING UNDERGRADUATE

+94 762813836 | thathsaraishan@gmail.com |  /in/ishan-kumarasinghe |  ishan-kumarasinghe

PROFILE

Final year Computer Engineering undergraduate specializing in Full-Stack Web & Mobile Development. Fluent in React, Angular, Node.js, Spring Boot and database operations, with comprehensive knowledge of the MERN stack and DevOps methodologies. Proven ability to deliver high-quality code in Agile environments. Seeking an internship to apply technical skills in building efficient, user-centric real world applications.

EDUCATION

BSc Eng Hons specializing in Computer Engineering (UG)

Feb 2022 - Present

University of Peradeniya

- Current GPA: 3.68 /4.0

TECHNICAL SKILLS

- Languages: Python, Java, C++, SQL, C, JavaScript, TypeScript, Dart, Ballerina
- Frontend Development: React, Angular, Flutter, HTML/CSS, AJAX
- Backend Development: Spring Boot, Node.js, Express.js, Ballerina
- Cloud: Git, GitHub, GCP, AWS, Docker, Jenkins, Ansible, Terraform
- Libraries & Tools: TensorFlow, OpenCV, Trello

PROJECTS

Synthetic Cardiac MRI Image Generation using Deep

| Research | 

Aug 2025 - Present

Generative Models

Tech Stack: Python, PyTorch, MONAI, Diffusers

Synthetic Cardiac MRI Image Generation from Diffusion and Flow matching Deep Generative Models using limited publicly available data.

My contribution:

- Generate realistic synthetic multi labeled masks to condition the deep generative models.
- Build conditional Diffusion models with 70-80 FID value to generate synthetic cardiac MRI.
- Evaluate generated images on Fidelity and Privacy aspects.

SMART AGRICULTURAL MONITORING SYSTEM

| Group | 

Dec 2024 - Jul 2025

Tech Stack: Flutter, React, Firebase, GCP, FastAPI

IoT solution to collect real-time location-based data, demonstrating over 30% efficiency in the field.

My contribution:

- Developed a mobile application using Flutter, web app using React integrated Firebase services including Authentication, Cloud Firestore and Cloud Storage.
- Built a dockerized tree health monitoring service using FastAPI, deployed on GCP Cloud Run with automated CI/CD pipelines for seamless updates.

POSTGRADUATE STUDENTS MANAGEMENT SYSTEM

| Group | 

Apr 2024 - Nov 2024

Tech Stack: Angular, Spring boot, MySQL, Typescript

Software solution designed to enhance administrative efficiency and academic monitoring within the department using Spring Boot, integrating JWT authentication and role-based access control.

My contribution:

- Built the Web app using Angular for Postgraduate portal introducing 6+ new features.
- Integrated the frontend with backend APIs, ensuring secure connectivity via JWT and CORS.

Event-Driven, Dockerized To-Do Application | [Individual](#) | [Link](#) Dec 2025 - Feb 2026

Tech Stack: Docker Compose, React, Node.js, MySQL, RabbitMQ, AWS

A production-style full stack app with event-driven backend and containerized deployment.

- Developed asynchronous event-driven architecture using RabbitMQ achieving 100% Notification system reliability.
- Orchestrated production-ready containers via Docker Compose ensuring high availability.
- Configured cloud-ready deployment patterns for AWS.

BOOK MY DOCTOR | [Group](#) | [Link](#) Aug 2024 - Nov 2024

Tech Stack: Next.js, Ballerina

Healthcare patient management system designed to simplify and streamline the process of booking and managing doctor appointments.

My contribution:

- Built a healthcare appointment system using Next.js for registration and document uploads.
- Designed the backend using Ballerina to handle encrypted data and manage real-time doctor availability.

ACHIEVEMENTS

Undergraduate Inventor of the Year (UIY) 2025 Nominee | IESL Oct 2025

Third-Year Project (SAMS) submitted to the competition organized by the Institution of Engineers, Sri Lanka (IESL) and ranked within the top 15 out of over 50 competing teams.

ENGEX 75th Anniversary Exhibition Showcase | University of Peradeniya Aug 2025

SAMS project selected for display at the SMART CITY zone by Peracom, celebrating the Faculty of Engineering's 75th anniversary and receiving positive feedbacks from industry professionals.

Innovate with Ballerina Coding Challenge | IEEE UoM & WSO2 Nov 2024

"Book My Doctor" project selected for the coding challenge and successfully completing the project with a high score.

CERTIFICATION

- Google Agile Essentials - Google
- Implement the Scrum Framework - Google
- Java Programming – Sololearn(July 2024)
- Front-End Web Development – University of Moratuwa (via CODL)
- Python for Beginners – University of Moratuwa (via CODL)
- Web Design for Beginners – University of Moratuwa (via CODL)

REFERENCES

Dr.Isuru Nawinne

Senior Lecturer / Project Advisor

Department of Computer Engineering

Faculty of Engineering - University of Peradeniya

Phone: +94 718495506

Email: isurunawinne@eng.pdn.ac.lk

Ms. Yasodha Vimukthi

Lecturer

Department of Computer Engineering

Faculty of Engineering - University of Peradeniya

Phone: +94 719764671

Email: yasodhav@eng.pdn.ac.lk

ADDITIONAL INFORMATION

- Github : <https://github.com/ishann211>
- Hackerrank : <https://www.hackerrank.com/profile/e20211>