

# ISHAN KUMARASINGHE

## COMPUTER ENGINEERING UNDERGRADUATE

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### 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 | [link](#)

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 | [link](#)

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 | [link](#)

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**

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**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 75<sup>th</sup> 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**

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- 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**

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<b>Dr.Isuru Nawinne</b> Senior Lecturer / Project Advisor Department of Computer Engineering Faculty of Engineering - University of Peradeniya Phone: +94 718495506 Email: isurunawinne@eng.pdn.ac.lk	<b>Ms. Yasodha Vimukthi</b> Lecturer Department of Computer Engineering Faculty of Engineering - University of Peradeniya Phone: +94 719764671 Email: yasodhav@eng.pdn.ac.lk
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**ADDITIONAL INFORMATION**

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