

Gishan Damindu

Electronic and Telecommunication Engineering Undergraduate, University of Moratuwa

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github.com/GishanDamindDK Portfolio

Profile Summary

As a self-motivated final-year undergraduate with a strong foundation in **Software Engineering** and **Artificial Intelligence**, I am passionate about solving real-world problems and eager to make meaningful contributions in these fields.

Education

University of Moratuwa

Moratuwa, Sri Lanka

B.Sc. Engineering (Hons.) in Electronic and Telecommunication Engineering

2021 - Present

GPA: 3.51/4.0

Coursework: Neural Networks, Deep Learning, Computer Vision, Data Structures & Algorithms

Coursera

Online

Databases and SQL for Data Science with Python (IBM)

AWS Cloud Technical Essentials (AWS)

Machine Learning Specialization (Stanford University)

Rahula College

Matara, Sri Lanka

GCE Advanced Level - Physical Science Stream

2016 - 2019

3As — Island Rank: 50 — District Rank: 5

Skills

- **Programming Languages:** Python, Go, Java, JavaScript, C++
- **Frameworks & Tools:** Spring Boot, React.js, Next.js, Express.js, Docker
- **Technologies:** WebRTC, Microservices, REST APIs, Git
- **Machine Learning:** PyTorch, Computer Vision, Natural Language Processing

Work Experience

Software Engineering Intern

Dec 2023 - May 2024

NCINGA PTE LTD, Colombo, Sri Lanka

- Contributed to the development of a custom, bidirectional, cost-effective communication platform using 100% open-source technologies, including **WebRTC**, **Go**, **React.js**, and **Next.js**, enabling rapid deployment cycles.
- Designed and implemented a highly responsive front end, enhancing user experience with **Figma** and **MUI** for intuitive UI/UX design in React.js. Developed a scalable, microservices-based backend system, reducing code complexity and enabling easy updates and reusable components. Additionally, established a secure and efficient testing and deployment pipeline using **Nginx**, **Docker**, and **AWS EC2**.
- Implemented strategic enhancements to develop an efficient captive portal using the **Cisco Meraki Cloud Platform** and the **MERN** stack. Identified and resolved critical issues in API call management that were causing delays.

Visiting Instructor (Part-time)

Sep 2023 - Oct 2023

University of Moratuwa, Moratuwa, Sri Lanka

- Supervised the **Robot Design and Competition** module.

Projects

Detection and Identification of UAV Swarms

2024 July - Present

- Develop a UAV identification framework using radar signal processing and deep learning techniques for accurate detection, classification, and estimation of speed and direction. Validate the system's performance using real radar datasets.
- **Tools and Technologies:** Python, PyTorch, MATLAB, Deep Learning, Signal Processing

- **Gamified Energy Conservation Web Application** *2024 May – 2024 June*
 - Designed an interactive platform to promote energy conservation through gamification, incorporating features like user dashboards, energy savings tracking, and reward mechanisms.
 - **Tools and Technologies:** ReactJS, Spring Boot, Unity, MySQL
- **Rentify: Online Rental Platform** *Ongoing*
 - Built a platform for renting houses, vehicles, and equipment with secure authentication, using RabbitMQ for microservices communication to handle bookings and notifications.
 - **Tech:** Next.js, Golang, RabbitMQ, PostgreSQL, Docker
- **Video Chat Application** *2024 Feb – 2024 April*
 - Developed a bidirectional video chat application designed for real-world use cases, incorporating a custom data management system.
 - **Tools and Technologies:** ReactJS, MySQL, Go
- **Product Management System** *2024 May – 2024 April*
 - Developed a CRUD application for managing product lifecycles using a microservices architecture. and integrated secure authentication and role-based access control mechanisms.
 - **Tools and Technologies:** Spring Boot, MySQL
- **Flower Exchange Platform** *2023 May – 2023 Aug*
 - Built a trading application with reduced code complexity and improved performance over Java-based platforms.
 - **Tools and Technologies:** C++, OOP
- **Identifying Deforestation Drivers** *2024 Dec – Present*
 - This ongoing project uses Sentinel-2 imagery and deep learning to identify deforestation drivers and analyze land-use changes for targeted conservation strategies.
 - **Tools and Technologies:** Pytorch, Deep Learning, Computer Vision
- **LLM RAG Chatbot** *2024 May – 2024 Aug*
 - Developed a chatbot capable of answering questions from provided documents using retrieval-augmented generation techniques.
 - **Tools and Technologies:** Python, Hugging Face, PyTorch, NLP, Ollama, Langchain

Achievements

- **Dean's List:** Semester 6 and Semester 7
- **Champions:** SPARK Challenge 22/23 - Electronic Engineering Competition
- **5th Place:** Technobots 2023 - Robotics Competition
- Mahapola Higher Education Merit Scholarship

Leadership Experience

- Manager of Operations, Electronic Club - University of Moratuwa *May 2023 – May 2024*
- Committee Member, Leo Club - University of Moratuwa *May 2021 - Dec 2022*
- Team Leader, Rahula College Debate Team *Jun 2016 - Aug 2018*

References

Dr. Chamira U. S. Edussooriya
 Senior Lecturer
 Electronic and Telecommunication Engineering
 University of Moratuwa, Sri Lanka
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Mr. Jasintha Dassanayake
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