Gishan Damindu

Electronic and Telecommunication Engineering Undergraduate, University of Moratuwa

+94 76 949 7680 | gishankalasinghe1999@gmail.com | linkedin
github.com/GishanDamindDK Portfolio

Profile Summary

As a self-motivated final-year undergraduate with a strong foundation in **Artificial Intelligence** and **Software Engineering**, 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)
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

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 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
- **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

- **Densely Packed Product Detection** *2023 Aug – 2023 Dec*
  - Applied computer vision models for detecting retail items in densely packed scenes, improving accuracy through fine-tuning and post-processing.
  - **Tools and Technologies:** Python, OpenCV, Deep Learning

Skills

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

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
Email: chamira@uom.lk

Mr. Jasintha Dassanayake
Principal Architect
NCINGA PTE LTD, Colombo, Sri Lanka
Email: jay.dasanayake@ncinga.net