Gishan Damindu

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PROFILE SUMMARY

A dedicated and self-motivated individual with a software engineering background, eager to embrace challenges and quickly adapt to new technologies. A collaborative team player with a proactive mindset, willing to take leadership.

EDUCATION

University of Moratuwa

Moratuwa, Sri Lanka

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

2021 - Present

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

Online Coursera

Object-Oriented Programming Specialization (University of London)

Databases and SQL for Data Science with Python (IBM)

Foundations of Data Structures and Algorithms Specialization (University of Colorado Boulder)

Deep Learning Specialization (DeepLearning.AI)

Machine Learning Specialization (Stanford University)

Rahula College Matara, Sri Lanka 2016 - 2019

GCE Advanced Level - Physical Science Stream

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 Keycloak, MySQL, Docker, and AWS EC2.
- As a proof of concept for another project, implemented strategic enhancements to create an effective captive portal using the Cisco Meraki Cloud Platform and MERN stack. Identified critical areas in API call management, addressing key issues causing delays.

Visiting Instructor (Part-time)

Sep 2023 - Oct 2023

University of Moratuwa, Moratuwa, Sri Lanka

• Supervised the Robot Design and Competition module.

KEY PROJECTS

• Detection and Identification of UAV Swarms

2024 July – Present

- Develop a UAV identification framework using radar signal processing and deep learning for accurate detection, classification, and speed/direction estimation, and validate system performance with real radar datasets.
- Tools and Technologies: Python, MATLAB, Deep Learning, Signal Processing

• Gamified Energy Conservation Platform

2024 May – 2024 June

- Designed an interactive platform to promote energy conservation through gamification.
- Developed features such as user dashboards, energy savings tracking, and reward mechanisms.

- Tools and Technologies: ReactJS, Spring Boot, Unity, MySQL

• 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

• Product Management System

2024 May - 2024 April

- Developed a CRUD application for managing product lifecycles using a microservices architecture.
- Integrated secure authentication and role-based access control mechanisms.
- Tools and Technologies: Spring Boot, MySQL, Keycloak, Docker

• Flower Exchange Platform

2023 May - 2023 Aug

- Built a trading application with reduced code complexity and 60% improved performance over Javabased platforms.
- Tools and Technologies: C++, OOP

Language Translation Application

2024 Dec

- Fine-tuned a transformer model for English-to-Sinhala translation tasks.
- Collected and preprocessed a bilingual dataset to enhance model performance.
- Tools and Technologies: Python, Hugging Face, PyTorch, NLP

• 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 to detect retail items in densely packed scenes.
- Improved detection accuracy through model fine-tuning and post-processing techniques.
- Tools and Technologies: Python, OpenCV, Deep Learning

TECHNICAL SKILLS

- Programming Languages: Python, Java, JavaScript, C++, Go
- Frameworks & Tools: Spring Boot, React.js, Express.js, Docker, AWS
- Technologies: WebRTC, Microservices, REST APIs, Git
- Machine Learning: TensorFlow, 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, Electronic Club

Aug 2022 - May 2023

• 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

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