# Damsith Adikari

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# **Intern Experience**

## WSO2 - Software Engineering Intern

2024 December - 2025 May

- Designed and Implemented an Agentic AI analyzer for WSO2 Micro Integrator diagnostics. %
- Developed Ballerina Integration for HubSpot Companies API. %

### **Education**

 $\label{lem:continuous} \textbf{University of Moratuwa}, \textbf{B.Sc.} \ \textbf{Engineering (Hons.)} \ \textbf{in Electronic \&}$ 

August 2022 – Present

Telecommunication; GPA: 3.79/4.00 \( \begin{align\*} \begin{align\*}

• Coursework: Linear Algebra, Applied Statistics, Image Processing and Machine Vision, Pattern Recognition, Digital System Design, Circuit Design, Embedded Systems and Applications, Data structures and Algorithm

Ananda College, Colombo 10, GCE Advanced Level - Physical Science Stream;

Jan 2018 – Oct 2020

Z-Score: 2.8655

- Ranked 9th in the country and 3rd in the Colombo district
- Subjects: Combined Mathematics, Physics, Chemistry

LSEG, High-performance and mission-critical software development using C++

2024

Coursera, Machine Learning Specialization (DeepLearning.AI)

2024

**Coursera**, Deep Learning Specialization (DeepLearning.AI)

Ongoing

LinkedIn, Marketing foundations

2019

# Awards and Scholarships

## 1st Runners up of Spark Challenge 2024

2024

• We proposed and developed the initial prototype using machine vision for poultry monitoring and enhancing automation in large-scale poultry farms.

#### Merit Award for being a top team in Predicta 1.0

2024

• I was the leader of team 'Learning curves'. We ranked 7th in this machine learning model competition.

## ScholarX Mentee - Sustainable education Foundation

2024

• Research Based mentoring program for selected high potential undergraduates.

# Completed and won the best community project award at Innovation Creativity Entrepreneurship Boot camp by Meta

2023

• Only 30 applicants were accepted for this program.

#### Gavelier of the Year Award

2023

• Awarded to the club member who best personified the leadership and communication skills.

### Spirit Of Service Award of Rotaract Club of University of Moratuwa

2023

• Awarded to the club members who showed the most dedication to club activities.

# Mahapola Higher Education (Merit) Scholarship

2022

• For outstanding performance in GCE A/L Examination.

# Won 8 prestigious prizes and awards in the 2020 prize giving of Ananda College, including:

# • C.W. Leadbeater Challenge Cup

For achieving the highest results in the Ananda College physical science section.

## • Harold Jayathilaka Memorial Award

For highest aggregate in Physics.

## • Muhandiram Charles Memorial Award

For the highest aggregate in Combined Mathematics.

## • Ananda Pradeepa Award

Awarded to the College subject toppers based on G.C.E. A/L Examination.

#### Most Outstanding student of the physical science section in grade 12

2019

# **Projects**

### Multimodal wild animal detection system (Collaboration with Dialog Axiata)

Final year project

• A low cost system with multiple sensor inputs, which can accurately detect wild animals and send real time alerts.

# Joint phase noise and channel estimation for sub-THz communication %

Final year research project

• Researching the use of neural networks for accurate estimation of phase noise and channel for sub-THz communication systems under supervision of Dr. Dileepa Marasinghe (Olu University)

#### Smart Water Bottle %

Semester 2 group project

• A smart bottle that monitors daily water intake of a user and sends necessary reminders using an application.

## Lead Acid Battery Charger %

Semester 3 group project

• A two-stage charging process (constant current and constant voltage using PWM) for optimal performance.

# Depth Camera using a single camera %

Semester 4 group project

• A low-cost Depth Camera using a single camera to perform object detection and depth measuring.

# UniLink - Social Media Platform for University Students %

**Group Project** 

- A social media platform for university students using Django with user authentication and Twilio integration.
- The project reached the semifinals in Idealize 2022.

# RAKI 1.0 (under supervision of prof. Suranga Nanayakkara) %

Project for ICE programme

- An automated personal assistant that can identify the emotional state and support elderly people.
- I developed a facial emotional recognition system that can identify the emotions based on the facial expressions.

# nanoGPT Implementation Inspired by Andrej Karpathy %

Personal Project

- Developed a simplified version of a GPT model, nanoGPT, based on Andrej Karpathy's work.
- Used tokenization, positional embeddings, multi-head self-attention and feedforward networks

# Dual-Distribution Discrepancy for Anomaly Detection in Chest X-Rays %

Semester 5 Group Project

• I implemented and tried to improve this research using TensorFlow and CUDA.

# Smart Medibox

Personal Project

• A medibox connected to web to store your medicine and set alarms using ESP32.

## **Design of Linear Power Supply**

Personal Project

• Designing and implementing a linear power supply with the given specifications.

# **UART Transceiver Implementation in FPGA**

Personal Project

• Used Verilog hardware description language (HDL) to Design.

# **Fully Automated Robot for Given Specific Task**

Personal Project

• Line following, Wall following, Gripper mechanism and Color detection.

#### Future weather prediction for 100 cities %

Personal Project

• Used a hybrid model with sinusoidal regression and XGBoost.

# Leadership Experience

| Chairperson - IEEE professional communication student chapter of University |  |
|---|--|
| of Moratuwa   |  |

March 2025 - Present

• Managing the chapter and its events.

# Assistant Treasurer - IEEE professional communication student chapter of University of Moratuwa

March 2024 - March 2025

# Department of Electronic and Telecommunication Engineering, Field representative for semesters 4,5,6

Jan 2024 - May 2025

- Leading the students in organizing department events.
- Facilitate effective communication between students and the staff.

## Group Representative of E1 Engineering group for semester 1

April 2023 - December 2023

## Gavel Club of University of Moratuwa, Vice president Membership

March 2024 - March 2025

- Planning the main events of the club.
- Monitor and Record activities of over 100 members.

## EXMO 2023, Marketing committee member

Sept 2023

Coordinated and announced in the live stream of EXMO which had over 20000 views.

Electronic club, Externel Relations Manager.

Aug 2024 - Aug 2025

Electronic club Main Branch, Executive Committee member.

Aug 2023 - Aug 2024

Assistant Director of Projects in Old Anandian's Engineering Guild Student Chapter

March 2023 - March 2024

# Other Extra Curricular Activities

#### **Event Co-Chairing**

- ChapterX % A TED X inspired event that had 4 renowned speakers and over 350 participants.
- Boon digiti % A Website to teach IT to the students in the African and South Asian regions.
- Euphoria Prom Night % The year ending ceremony had over 300 participants.
- Gavel Mora Gavel Ruhuna Joint meeting % An event that was focused on tightning the bond between two clubs
- Career Insight A sub project of the official career fair of the University of Moratuwa.

### **Event Organizing**

- Speech Olympiad XVI % (Intra university public speaking competition) Logistic Pillar head.
- Congregation (Official get together of the Old Anandian's Engineering Guild) Project Supervisor.
- Envoyage % (Distinguished forum and dinner) Batch coordinator.

#### **Public Speaking**

- Semi Finalist in Speech Olympiad XV
- Finalist in Speech Olympiad XVI (intra university public speaking competition)
- Finalist and 4<sup>th</sup> place in Eloquence (inter university Public Speaking Competition organized by the University of Colombo).
- Semi Finalist in the Mora Lenz media awards

**Volunteering** - Moderated over 15 events in the university including the official career fair of the department, the Installation ceremony of the Rotaract club of UoM and Finale of the Speech Olympiad 15, Volunteered for teaching in Ananda Collage

# **Skills Summary**

Languages: English (professional proficiency), Sinhala (native proficiency)

**Programming Languages:** Python, C++, Matlab, Java

Software: Machine Learning (Tensorflow, PyTorch, Scikit-learn), PCB Designing (Altium), Electronic circuit design

and simulation (LTspice), Robotics (OpenCV, Arduino)

Other: Project Management, Leadership, Public Speaking

## References

# Dr. Ranga Rodrigo

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