Mohamed Mysan Mohamed Muftee

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Summary

A highly driven, ambitious, and innovative Electronics and Telecommunication Engineering undergraduate with a passion for building meaningful technology. I actively dive into side projects and competitions, ranging from embedded systems to assistive tech, constantly exploring beyond the classroom. Outside academics, I play university-level cricket, volunteer in national peacebuilding efforts, compère at both university and external events, and help organize department initiatives. My work is guided by curiosity, collaboration, and a deep belief in using engineering to create real-world impact.

Education

University Of Moratuwa, Sri Lanka (Undergraduate)   2023 - 2027
- B.Sc. Engineering (Hons.) in Electronics and Telecommunication Engineering; **CGPA: 3.96/4.00**
- *Minor in Mathematics:* Graph Theory, Numerical Methods, Linear Algebra
- *Minor in English for Academic and Professional Purposes*

Wesley College, Colombo   2013 - 2022
- G.C.E. Advanced Level 2021(2022) - Physical Science Stream; **Z-score of 2.7140, Island 16th**, Colombo District 6th
- G.C.E Ordinary Level 2018 - 9As (Basket subjects: English Lit., ICT & Commerce)

External Certifications, Online
- *Machine Learning Specialization (DeepLearning.AI)* : 2024
- *Artificial Intelligence in Embedded Systems (UoM)* : 2024
- *CS50's Introduction to Computer Science (Harvard University)* : 2024 - Present

Awards — University

Dean's List | University of Moratuwa
Semesters 1, 2, 3

Champions | SLIoT 2025
Innovation competition for IoT product development organized by UoM, IESL and powered by SLT Mobitel.

Champions | Sri Lanka Inter-University Make-A-Thon for 3D Printed Assistive Medical Devices 2025
Make-A-Thon organized by the University of Kelaniya, ADB and FabLab Shingawa

1st Runner-Up | Ciculatory Challange 2025
Innovation competition for circulatory product development

2nd Runner-Up | VRCade 2.0
Virtual Reality Competition Organized by IAS at the University of Moratuwa

1st Runner-Up | IESL Start-Up Spark Competition 2024
Start-Up competition for sustainable product development

Awards — University Sports

Sri Lanka University Sports Association Colors 2025 | Cricket
Awarded for a select few best performing players at the Inter-University Games

Moratuwa University Colors 2024, 2025 | Cricket
Awarded for the performance in the Inter-University Games

2nd Runner-Up | Sri Lanka University Games 2023 : Cricket
SLUG is the premier Inter-University Games for local University Students in Sri Lanka

Awards — School

Runners-Up | Dr. Vijitha Weerasinghe Memorial Tournament 2021
Emerged as Runners-Up at the All-Island Interschool Debating Championship organized by Royal College.

Best Delegate Award | RichMUN 2019
Awarded for the exhibition of admirable depth of knowledge and outstanding diplomatic skills by representing Germany in the United Nations Human Rights Council at RichMUN.

Higher Commendation Award | Sri Lanka Model United Nations Conference 2019
Awarded for the exhibition of admirable depth of knowledge and outstanding diplomatic skills by representing Belgium in the Commission on the Status of Women at SLMUN.

Hill Medal | Wesley College
Awarded to the student who obtained the highest Aggregate for University Entrance.

Active Participation Award | Wesley College
Awarded for active participation in extra-curricular activities and gaining university entrance.

Lady Bandaranayake Memorial Prize | Wesley College
Awarded for outstanding leadership.

L. E. Fernando Award | Wesley College
Awarded to the most outstanding student.

Shelton Weerasinghe Prize | Wesley College
Awarded for the best results at G.C.E. A/L (Engineering stream).

Prof. Razeen Sappideen and Prof. Caroline Prize | Wesley College
Awarded to the best university entrant in Engineering.

Alick & Violet De Alwis Memorial Prize | Wesley College
Awarded for excellence in English debating.

Projects

BSFix - Automated IoT system for BSF Farming.   Dec 2024 - Present

- Developed an IoT-based automation system for Black Soldier Fly farming to optimize waste-to-resource conversion. Enabled smart feeding, growth tracking, and environmental control via sensor-driven ESP32 modules, Raspberry Pi 4, and a mobile dashboard.
- Champions of SLIoT University Category 2025.

A Reconfigurable Gripper for Robotic Autonomous Depalletizing in Supermarket Logistics   Jan 2025 - Present

- Designed a robotic end effector for depalletizing in warehouse logistics, integrating pneumatic actuation and Time-of-Flight sensors for adaptive gripping. Developed rack-and-pinion-driven fork with microcontroller-based control for real-time box handling.

Finger Reader Lite   Mar 2025 - Present

- Developed a finger-mounted wearable device that reads printed text aloud for visually impaired users using embedded OCR and text-to-speech on ESP32. Inspired by Prof. Suranga Nanayakkara's work, the system supports real-time reading of printed English text.

EcoSync - a smart A/C regulator
Mar - Aug 2024
- EcoSync is a smart A/C regulator that integrates into operating split-type air conditioners to automate temperature control based on user presence in hotel rooms.
- 1st Runner-Up at IESL Techno-Spark Startup Challenge and 1st Runner-Up at INSEE Circulatory Challenge 2025.

Analog Solar Tracker
Jun - Dec 2024
- Designed a single-axis solar tracker using purely analog components, implementing a PID controller with op-amps and PWM motor control. Developed a dual-layer PCB in Altium and an enclosure designed in SolidWorks as part of learning core analog electronics and system integration.

Analog Design Competition
Dec 2024
- Participated in a 24-hour analog electronics challenge to design and prototype a waveform generator without simulations or internet access. Built a working circuit using only fundamental components, emphasizing analog intuition, teamwork, and hands-on problem solving.

ICE: Innovation Creativity Entrepreneurship; Design Bootcamp
Sept 2024
- Participated in ICE 2024, a national innovation bootcamp themed around AI and pioneered by Prof. Suranga, focused on solving real-world problems through technology. Developed SriXR, a VR simulation to promote tourism in Sri Lanka, and received the Best Team Dynamics award.
- 1st Runner-Up at VRCade 2024.

Converting Mono Signals into 3D Spatial Sound with Ambisonics for Improved Localization and Immersive Audio Experience
Dec 2024 - Present
- Selected for a mentored research project on converting mono audio to spatial 3D sound using ambisonics for immersive experiences. Currently in early stages, focusing on literature review and signal processing methodology development.
- Received USD 4000 in travel support to attend IEEE ICASSP 2026 and visit the mentor's lab during the project.

Predictia: Using Data Science to predict, forecast and classify weather.
August 2024
- Participated in Predicta 1.0, a national machine learning competition focused on weather forecasting and classification. Built regression and classification models using TensorFlow and Pandas, applying data science to solve real-world, socially impactful problems.

Non-technical Projects and Community Service

Delegate – Global Unites Summit 2025 (Dubai) *Apr 2025 – Present*
Selected as a fully sponsored delegate representing Sri Lanka among 200 global youth leaders at the Global Unites Summit. Committed to a 5-year leadership role including community engagement, training, and local chapter development.

Secretary General - *Sri Lanka Rotaract Model United Nations Conference* *Nov 2023 – Apr 2024*
Led and organized a national-level Model UN conference for university and school students across Sri Lanka, serving as chairperson of the entire event.

Camp Commander - *Kids Leadership Conference (Sri Lanka Unites)* *Feb 2023*
Led a 3-day residential leadership camp for children aged 9–16 from diverse socioeconomic and religious backgrounds across Sri Lanka. Delivered sessions themed around leadership, peacebuilding, and reconciliation, fostering mutual understanding and empathy among participants.

Volunteer - *Sri Lanka Dream Team Tour Season 6 (Sri Lanka Unites)* *May 2022*
Selected as the sole volunteer from the Colombo District for a 30-day nationwide tour across all districts in Sri Lanka. Conducted school-based leadership programs and evening town hall sessions promoting peace and reconciliation. Delivered sessions in all three languages, engaging deeply with local communities and supporting students through mentorship and guidance.

President - *ICRC : Sri Lanka Model United Nations Conference* *Feb 2022 – Oct 2022*
Headed a committee in Sri Lanka's largest Model United Nations conference with 750+
student participants, held at BMICH.

Skills

- **Programming Languages:** Python, C++, C, MatLab
- **Machine Learning Frameworks:** TensorFlow, PyTorch
- **Tools:** Electronic Simulation (LTSpice), Enclosure Designing (Solidworks), PCB Design (Altium)
- **Soft Skills:** Public Speaking, Leadership, Teamwork, Project Management
- **Languages:** English, Sinhala, Tamil

Clubs and Organization

- **Gavel Club** – Member and occasional speaker at public speaking sessions

- **Rotaract Club** – Member contributing to community service and leadership projects

- **E-Club (Electronic Club)** – Active member involved in both technical and social initiatives within the department

- **IEEE Student Branch** – Engaged in technical workshops and student-led initiatives

- **IEEE Signal Processing Society** – Member with a focus on research exposure and academic growth

- **Mora Hiking Club** – Enthusiast exploring nature and endurance through university-organized hikes

- **Mathematics Society** – Member pursuing interests in theoretical and applied mathematics

- **Sri Lanka Unites / Global Unites** – Youth volunteer promoting peacebuilding and reconciliation at national and international levels

References

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