

# Nilesh Amarathunge

• 408/9, Pinwalapitiya Watte, Bamunawala, Kurunegala.

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🌐 <https://portfolio.nilesh.uk/>

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## Statement

I am a passionate and driven individual with a strong interest in machine learning, robotics and embedded systems. I am constantly seeking to expand my knowledge and skills through continuous learning, staying up to date with the latest advancements in technology to contribute to innovative and impactful solutions.

## Education

### University of Moratuwa

BSc.(Hons) in Electronics and Telecommunications Engineering.

Moratuwa, Sri Lanka

2024 - Present

- Dean's list (CGPA : 3.8817)

### National Institute of Business Management.

Diploma in Software Engineering.

Kurunegala, Sri Lanka

2023 - 2024

- Distinction pass with GPA 3.911

### Maliyadeva College.

GCE Advanced Level in physical science stream

Kurunegala, Sri Lanka

2009 - 2023

- Combined Mathematics : A, Physics : A, Chemistry : A, General English : A

- Z-score : +2.2132

## Projects

### Team N1K0 – Micromouse

Micromouse Robotics Competition Project

2025 – Present

Project link: [portfolio.nilesh.uk](https://portfolio.nilesh.uk)

- Designed and manufactured a competitive micromouse for SLIIT Robofest 2025.
- Led full mechanical system design including chassis, drivetrain, and assembly.
- Designed a compact high-reduction (1:6) gear system for coreless motors.
- Performed full mechanical assembly and validation for smooth motor control.

### Analog Noise Cancelling Headphones

Analog Electronics Product Design

2025 – 2026

Project link: [portfolio.nilesh.uk](https://portfolio.nilesh.uk)

- Led a team to design and prototype an analog noise-cancelling headphone system.
- Designed complete analog circuitry including noise reduction and volume control.
- Created PCB layouts using Altium Designer and assembled the full prototype.
- Tested and validated circuit performance under real-world conditions.

<b>Team Lynx – Battle Bot</b>	2025 – Present
<i>Combat Robotics Competition</i>	<i>Project link: <a href="#">portfolio.nilesh.uk</a></i>
<ul style="list-style-type: none"> <li>Led a multidisciplinary team to design and manufacture a battle bot for RoboGames 2025.</li> <li>Designed a horizontal spinning blade weapon driven by a high-power DC motor.</li> <li>Completed full mechanical and structural design prior to manufacturing.</li> <li>Competed at RoboGames 2025 hosted by the University of Moratuwa.</li> </ul>	
<b>Falcon E-racing</b>	2025 – Present
<i>Formula Student Competition</i>	
<ul style="list-style-type: none"> <li>Falcon E-racing is the Formula Student group established in University of Moratuwa</li> <li>Volunteering at Falcon E-racing group as an low voltage engineer.</li> <li>Designed and manufactured the PCB's and wired the battery cart which handles charging the battery.</li> </ul>	
<b>ThermoBand</b>	2025 – 2026
<i>Wearable Medical Device Product Design</i>	<i>Project link: <a href="#">portfolio.nilesh.uk</a></i>
<ul style="list-style-type: none"> <li>Collaborated with electronics engineers to develop a consumer-ready wearable device.</li> <li>Designed enclosure optimized for comfort, durability, and manufacturability.</li> <li>Integrated sensors and electronics into final assembled product.</li> <li>Device enabled continuous body temperature monitoring and historical data tracking.</li> </ul>	
<b>E-Commerce Web Application</b>	2023 – 2024
<i>Full-Stack Web Development Project</i>	<i>GitHub: <a href="#">Frontend</a>, <a href="#">Backend</a></i>
<ul style="list-style-type: none"> <li>Led a team of three to design, implement, and deploy a full-stack e-commerce platform.</li> <li>Developed inventory management system for store employees.</li> <li>Implemented customer-facing features including browsing, ordering, and payments.</li> </ul>	

## Skills

Languages	Other
<ul style="list-style-type: none"> <li>Python (Proficient)</li> <li>C++ (Proficient)</li> <li>Java (Novice)</li> </ul>	<ul style="list-style-type: none"> <li>SolidWorks (Proficient)</li> <li>Altium Designer (Proficient)</li> </ul>

## Awards and Experience

<b>Robotic Minds Competition</b>	2015
<i>1<sup>st</sup> place in National level Robotics Competition.</i>	
<b>National Level Inventors Competition</b>	2014 - 2015
<i>1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> places in national and provincial level invention competitions.</i>	
* "Sahasak Nimavum", held by SLIC, Ministry of Education, Sri Lanka.	
<b>National Level Stamp Exhibition</b>	2017
<i>1<sup>st</sup> place in the National Stamp Exhibition organized by the Philatelic Bureau of Sri Lanka.</i>	

## **Extra Curricular**

**Member in Electronic club, university of Moratuwa.**

2025

*Web developer under the public relations branch of E-Club.*

**Board member in Philatelic Society.**

2021

*Vice Secretary of Philatelic Society, Maliyadeva College.*

**Board member in Inventors Club.**

2021

*Treasurer of Inventors Club, Maliyadeva College.*

**Scout**

2012 - 2020

*Active member of the Scout Troop at Maliyadeva College.*