

# 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.

- Dean's list (CGPA : **3.8817**)

Moratuwa, Sri Lanka

2024 - Present

### National Institute of Business Management.

Diploma in Software Engineering.

- Distinction pass with GPA **3.911**

Kurunegala, Sri Lanka

2023 - 2024

### Maliyadeva College.

GCE Advanced Level in physical science stream

- Combined Mathematics : **A**, Physics : **A**, Chemistry : **A**, General English : **A**
- Z-score : **+2.2132**

Kurunegala, Sri Lanka

2009 - 2023

## Projects

### Team N1K0 – Micromouse

Micromouse Robotics Competition Project

- 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.

2025 – Present

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

### Analog Noise Cancelling Headphones

Analog Electronics Product Design

- 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.

2025 – 2026

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

## Team Lynx – Battle Bot

2025 – Present

Combat Robotics Competition

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

- Led a multidisciplinary team to design and manufacture a battle bot for RoboGames 2025.
- Designed a horizontal spinning blade weapon driven by a high-power DC motor.
- Completed full mechanical and structural design prior to manufacturing.
- Competed at RoboGames 2025 hosted by the University of Moratuwa.

## ThermoBand

2025 – 2026

Wearable Medical Device Product Design

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

- Collaborated with electronics engineers to develop a consumer-ready wearable device.
- Designed enclosure optimized for comfort, durability, and manufacturability.
- Integrated sensors and electronics into final assembled product.
- Device enabled continuous body temperature monitoring and historical data tracking.

## E-Commerce Web Application

2023 – 2024

Full-Stack Web Development Project

**GitHub:** [Frontend](#), [Backend](#)

- Led a team of three to design, implement, and deploy a full-stack e-commerce platform.
- Developed inventory management system for store employees.
- Implemented customer-facing features including browsing, ordering, and payments.

## Skills

### Languages

- Python (Proficient)
- C++ (Proficient)
- Java (Novice)

### Other

- SolidWorks (Proficient)
- Altium Designer (Proficient)

## Awards and Experience

### Robotic Minds Competition

2015

1<sup>st</sup> place in National level Robotics Competition.

### National Level Inventors Competition

2014 – 2015

1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> places in national and provincial level invention competitions.

\* "Sahasak Nimavum", held by SLIC, Ministry of Education, Sri Lanka.

### National Level Stamp Exhibition

2017

1<sup>st</sup> place in the National Stamp Exhibition organized by the Philatelic Bureau of Sri Lanka.

## 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.*