



# Adhithya Heshan

## Undergraduate – Computer Science (AI) | Robotics Intern

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Ginigathena, Sri Lanka

### PROFILE

I am a Computer Science undergraduate specializing in Artificial Intelligence at NIBM–KIC, with a strong academic and practical interest in Robotics Engineering. I am passionate about designing intelligent systems that integrate software, algorithms, and hardware to solve real-world problems. My interests include AI-driven automation, robotics systems, machine learning, and embedded technologies. I am motivated to continuously learn, build, and contribute to innovative engineering solutions while developing a career in robotics and intelligent systems.

### PERSONAL DETAILS

DATE OF BIRTH	GENDER	NIC/PASSPORT
15/02/2003	male	200304612910
DRIVING LICENSE	NATIONALITY	
B6188088	sinhala	

### EDUCATION

2014 - 2023 Ginigathena	● G.C.E A/L & O/L Ginigathena Central Collage
Feb 2024 - Apr 2024 Kandy	● Certificate in Computer Science with AI NIBM - Kandy Innovation Center
2024 - 2025 Kandy	● Diploma in Computer Science with AI NIBM - Kandy Innovation Center
Present Kandy	● Higher National Diploma in Computer Science with AI NIBM - Kandy Innovation Center

### SKILLS

<b>Soft Skills</b> <ul style="list-style-type: none"><li>• Effective communication</li><li>• Teamwork and collaboration</li><li>• Leadership and initiative</li><li>• Time management</li><li>• Adaptability and flexibility</li><li>• Critical thinking</li><li>• Decision making</li><li>• Presentation skills</li></ul>	<b>Hard Skills</b> <ul style="list-style-type: none"><li>• Problem solving and analytical skills</li><li>• Project planning and management</li><li>• System analysis and interpretation</li><li>• Algorithmic thinking</li><li>• Research and documentation</li><li>• Quality and performance optimization</li></ul>	<b>Technical Skills</b> <ul style="list-style-type: none"><li>• Robotics system development</li><li>• AI driven automation</li><li>• Machine learning techniques</li><li>• Embedded systems and microcontroller programming</li><li>• Hardware and software integration</li><li>• Robot Operating System</li><li>• Sensor fusion</li><li>• Control systems and PID control</li><li>• Robotics simulation</li></ul>	<b>Programming Language</b> <ul style="list-style-type: none"><li>• Python</li><li>• C</li><li>• C++</li><li>• Java</li><li>• HTML</li><li>• CSS</li><li>• JavaScript</li></ul>
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## PROJECTS

### Smart Plant Watering System

#### IoT-Based Automated Irrigation and Monitoring System

- Designed and developed a smart plant watering system using microcontrollers, sensors, and automated control logic
- Implemented soil moisture sensing and real-time decision-making for efficient water usage
- Integrated automated irrigation control to optimize plant health and reduce water wastage
- Developed system logic for adaptive watering based on environmental conditions
- Delivered a fully functional prototype demonstrating reliable automation and practical IoT application

### Acea AI

#### AI crop recommendation system

- Designed and developed an AI-based crop recommendation system using machine learning techniques
- Analyzed soil parameters, weather data, and environmental factors to generate optimal crop suggestions
- Implemented data preprocessing and feature selection to improve model accuracy
- Trained and evaluated machine learning models for reliable crop prediction outcomes
- Delivered a functional system to support data-driven decision-making in agriculture

### Pearl Paths

#### Travel Booking Web Application

- Designed and developed a travel-booking platform using HTML/CSS/JS with a PHP backend
- Built user registration, booking submissions, and package selection workflows
- Integrated Google Maps API for destination visualization and route guidance
- Implemented structured UI layouts and secure data handling for smooth user experience

### Urban greenery segmentation

#### Image segmentation project for identifying for greenery area

- Developed an urban greenery segmentation system using computer vision and machine learning techniques
- Implemented image segmentation to identify and classify green areas in urban environments
- Processed and annotated image datasets for model training and evaluation
- Applied image preprocessing and feature extraction to improve segmentation accuracy
- Built and tested a functional prototype for urban environmental analysis

## WEBSITES & SOCIAL LINKS

GitHub

FaceBook

Instagram

## REFERENCES

**Prof. Sanath Amaratunga,**  
Professor at University of Peradeniya  
sanath@agri.pdn.ac.lk, 071-8339593

**Vimukthi Pathirana,** Consultant | Lecturer, NIBM  
vimukthi@nibm.lk, 071-0340367