

# Bogoda Arachchige Sameera Sandaruwan

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## Summary

My primary research interest is applying machine learning techniques to improve the navigation capabilities of robotics systems. I have specifically researched this topic for my MSc thesis. Furthermore, I have worked on a drone-mobile robot combined system for the MEng thesis. I was also a team member of the TU Delft MAVLab in the AlphaPilot Autonomous drone race challenge, which we won.

## Skills

<b>Fields</b>	Deep Learning, Control Systems, Embedded System Design, Wireless Communication
<b>Languages</b>	C/C++, Python, MATLAB, Java, NodeJS
<b>Frameworks</b>	PyTorch, Keras, OpenCV, ROS
<b>Web</b>	AngularJS, ExpressJS

## Education

### Radboud University

Nijmegen, The Netherlands

M.Sc. IN ARTIFICIAL INTELLIGENCE (SPECIALISATION ROBOT COGNITION)

January 2018 — April 2020

- Thesis was conducted in association with **MAVLab**, Faculty of Aerospace Engineering, Delft University of Technology
- Thesis:** Frame-to-Frame ego-motion estimation for agile drones with Convolutional Neural Network ([link](#))

### Sheffield Hallam University, UK. Conducted by Sri Lanka Institute of Information Technology (SLIIT)

Malabe, Sri Lanka

M.ENG. ELECTRICAL AND ELECTRONIC ENGINEERING (FIRST CLASS HONOURS)

January 2013 — March 2017

- Thesis:** A Quadcopter with Automated Take-off And Landing on Mobile Robot Platform ([link](#))
- 3rd Year Project:** FPGA Based Real Time Eye Tracking System ([link](#))

## Experience

### Ceymoss Technologies (Pvt) Ltd

Galle, Sri Lanka

CO-FOUNDER & RESEARCH AND DEVELOPMENT ENGINEER

September 2016 — January 2018

- Bellpepper Restaurant Management system: A tablet-based order management system, digital ticketing system for kitchen and bar, auto stock management, advanced reporting and real-time remote monitoring.
- Developed an embroidery machine downtime calculating system (Remote Preventative Maintenance): Automatically detect active/inactive status of machines and report them to the ERP system.

### Erbenlab LLC

Moratuwa, Sri Lanka

ELECTRONIC ENGINEER

January 2016 — June 2016

- Worked as the team leader of the Internet of Things division. Gained hands-on experience and knowledge in electronic device and embedded system production and equipment installation.

### Hitech Solutions (Pvt) Ltd

Biyagama, Sri Lanka

INTERNSHIP - ELECTRONIC ENGINEER

October 2014 — January 2015

- Gained expertise knowledge and hands on experience in analog electronics and how to use them to solve practical problems.
- Designed a Car battery charger to charge ten Lead-Acid batteries.

## Extracurricular Activity

### MAVLab AlphaPilot team

Netherlands

TEAM MEMBER

September 2019 - December 2019

- Lockheed Martin AI Drone Racing Innovation Challenge 2019 ([link](#))
- Helped the team with training the Neural Network used for Gate detection

### International Orientation Week

Radboud University, Netherlands

MENTOR

Aug. 2018 and Feb. 2019

Helped new coming international students in getting accustomed to the university environment.

### IEEEExtreme Programming Competition

SLIIT, Sri Lanka

PARTICIPANT

2014 and 2015

IEEEExtreme is an annual international 24-hour hackathon and competitive programming challenge in which teams of IEEE Student members compete against each other to solve a set of programming problems.

## IEEE Electronic Design Competition

PARTICIPANT

SLIIT, Sri Lanka

2014

Teams of IEEE student members complete an electronic circuit design task within 8 hours.

## Awards and Honors

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2014 **2nd Place**, SAIMT Robotic Challenge

Malabe, Sri Lanka

## Leadership opportunities

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2019-2020 **Member**, Radboud University Unibuddy program

Netherlands

2015 **Batch representative**, M.Eng. batch of Electrical and Electronic Engineering at SLIIT

Malabe, Sri Lanka

2015 **Assistant Secretary**, IEEE student branch of SLIIT

Malabe, Sri Lanka

2014 **Event Organizer**, IEEE student branch of SLIIT

Malabe, Sri Lanka

2013 **Member**, IEEE student branch of SLIIT

Malabe, Sri Lanka

2011 **Member**, Science Union, St. Joseph's College, Colombo 10

Colombo, Sri Lanka