

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

Fields

Deep Learning, Control Systems,
Embedded System Design,
Wireless Communication

Languages

C/C++, Python, MATLAB, ROS, JAVA, NodeJS,
LaTeX

Web

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

SLIIT, Sri Lanka

PARTICIPANT

2014

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

Awards and Honors

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

Malabe, Sri Lanka

Leadership opportunities

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