

# 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, JAVA, NodeJS, LaTeX

### Web

AngularJS, ExpressJS

## Education

### Radboud University

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

*Nijmegen, The Netherlands*

*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)

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

*Malabe, Sri Lanka*

*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

CO-FOUNDER & RESEARCH AND DEVELOPMENT ENGINEER

*Galle, Sri Lanka*

*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

ELECTRONIC ENGINEER

*Moratuwa, Sri Lanka*

*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

INTERNSHIP - ELECTRONIC ENGINEER

*Biyagama, Sri Lanka*

*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

TEAM MEMBER

*Netherlands*

*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

MENTOR

*Radboud University, Netherlands*

*Aug. 2018 and Feb. 2019*

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

### IEEEExtreme Programming Competition

PARTICIPANT

*SLIIT, Sri Lanka*

*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.

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

## Awards and Honors

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2014 **2nd Place**, SAITM 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

## Reference

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**Prof. Dr. G.C.H.E. (Guido) de Croon**

Delft University of Technology

PROFESSOR OF BIO-INSPIRED MICRO AIR VEHICLES, DEPARTMENT OF CONTROL & OPERATIONS, FACULTY OF AEROSPACE  
ENGINEERING

Delft, Netherlands

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**Dr. S. Thill (Serge)**

Radboud University

ASSOCIATE PROFESSOR IN ARTIFICIAL INTELLIGENCE AT THE DONDERS INSTITUTE FOR BRAIN, COGNITION AND BEHAVIOUR

Nijmegen, Netherlands

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