CHATHURA GUNASEKARA

B.Sc. Computer Science and Engineering
Undergraduate
Integrated Computer Engineering Stream
University of Moratuwa

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 PRO-GUNE in chathura-gunasekara

EDUCATION

Undergraduate
University of Moratuwa
2020 - Present
CGPA: 3.87 / 4.0
Dean List: Semester 2 (3.96/4.0)
Semester 3 (3.92/4.0)
Semester 4 (3.93/4.0)

SKILLS

- Embedded Systems Development
- Internet of Things
- Machine Learning
- Mathematics
- Embedded Networks
- 3D Modelling and Simulation
- Version Control and Automation
- Web Development
- Critical Thinking
- Time Management
- Teamwork and Leadership

CERTIFICATIONS

Algorithmic Toolbox - UC San Diego ↗
Pandas Certification - Kaggle ↗

PROGRAMMING LANGUAGES

C++ / C	Python	Javascript
Java	C#	VHDL

LANGUAGES

English   *fluent*
Sinhala   *fluent*

PROJECTS

Automated Targeting System for RoboCon 2023 robot ↗

Built 2 robots to compete at the RoboCon 2023 International Robotics Competition. I incorporated Image segmentation to identify targets and calculate distance using a kinect camera and a raspberry PI 3 board running on Linux and also handled holonomic motion modelling of one robot

IoT Air Quality Node ↗

An embedded device that measure air quality by measuring CO_2 concentration, Dust Matter concentration, humidity and temperature. Integrated with a node-red dashboard to display the statistics and control the device using the dashboard. Currently integrating a machine learning algorithm for predicting patterns using received data [In Progress]

AgrIoT BLE Communication ↗

Implement Bluetooth Low Energy protocol to transfer data from a soil sensor to a drone for the AgrIOT project.

Micromouse - Grid World Simulation ↗

Implemented a Python Pygame based simulation of micromouse, which is a maze solving robot. Includes a text file based maze generator and a maze solver using Flood Fill and backtracking algorithms

Wordle Bot ↗

This is a wordle bot designed using the principles of entropy in information theory to predict the most likely word

HONORS AND AWARDS

Represented Sri Lanka RoboCon 2023	August 2023
University representative IMC 2022	August 2022
3rd Prize IUHD Open Mathematical Olympiad	April 2022
Inter University Mens TT Team Champions	2022, 2023

REFERENCES

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