YASAS THARINDA

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Summary

Enthusiastic young undergraduate from university of Moratuwa having passion about electronics designing and software development. I am seeking a job opportunity in a related field and thereby expects to gain by utilizing myself to achieve organizational goals while improving my life skills.

Interested Fields

- Telecommunication
- IoT
- Robotics
- Software Development
- Electronics
- Project Management

Education

University of Moratuwa, Sri Lanka
BSc (Hons.) in Electronic and Telecommunication Engineering (2016-2020)
CGPA – 3.51
St Thomas' College, Matara, Sri Lanka
Physical science stream (2015 AL)
Z Score – 2.6287 (3A Passes)
Island Rank - 60, District Rank (Matara) - 7

Skills

Languages - C/C++, Java, Python, MATLAB, Verilog HDL
Tools – Altium Designer, Android Studio, Quartus, STM32CubeIDE

Experience& Projects

WIFI for Cooperative Vehicular Networks
Final Year Research (2020 Mar – present)
The goal is to research which extend WIFI can be used for the cooperative vehicular networks instead of the DSRC.

- Simulation: Omnet++ network simulator is used to analyze the network properties of our implementation
- Hardware Implementation: Customized the Ath9k WIFI device driver to achieve QOS for beacon frames using Linux backport 5.4.7 and raspberry-pi

Technical Experience – C/C++, Omnet++, Linux Drivers, Raspberry-pi, WIFI

FPGA Based Processor Design
(Semester 5 project)
The aim is to implement a custom CISC based processor to down sample image having size of 256*256. Gaussian Kernel image filtering algorithm is implemented using 16 custom instructions.

Connect6
(Semester 2 project)
Developed an algorithm based on a research paper to play complex game connect six. Algorithm is optimized to run on a PIC18F microcontroller

Other Projects
Maze Solver Robot (Semester 4 project)
Rubik Solve – Intelligent System to Solve Rubik cube (Semester 3 project)
Gamez- Kids Game Development Project (Semester 2 project)
Drone PCB -Quad Copter development using Altium Designer 15 (Semester 5 project)

Internship – SENZMATE IOT (PVT) LTD
(2019 June - December)
Involved in two main projects of PCB designing and Firmware development.
- Soil Moisture Sensor Design: research project to overcome corrosion issue of the typical soil moisture sensors. Developed the sensor using Altium Designer 15 and did the calibrations.
- STM32 Boot Loader and OTA Controller – Designed a OBD board using stm32f1 microcontrollers to collect speed and position of the vehicles. Developed Over-The-Air (OTA) firmware update system.

Technical experience – STM32 microcontrollers, MQTT, C/C++, Altium Designer, Git, Electronics, Documentation.

Achievements

- First Runners Up in XBOT robotic competition held by University of Ruhuna in2018
- First Runners Up in robotic competition held under Robot Design and Competition Module in 2018.
- IEEEXtreme 11.0 - Country Rank 58, World Rank 786 (2017)
- MoraXtreme 3.0 – University Rank 36 (2018)
- Mahapola Merit Award 2015

Leadership

- Member of nature team of University of Moratuwa (2018-2019)
- Participation in SLRC workshops (2018)
- Participation in projects organized by Leo Club University of Moratuwa

References

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