

ISURU RAJAPAKSHE

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SUMMARY

Enthusiastic individual with an interest in utilizing expertise in data structures and algorithms to design and develop functional software solutions. Interested in achieving a masters degree to further my knowledge in Computer Science.

SKILLS

- Data Structures and Algorithms
- Software Development
- Mathematics
- Technical Writing
- 3D Design and Graphics Design
- Circuit Design

EDUCATION

University of Moratuwa, Mortuwa, Sri Lanka Nov. 2016 - Aug. 2021
BSc Engineering Honours Degree specialized in Electronic and Telecommunication Engineering
Second Class (Upper Division) Honors with a CGPA of 3.57 out of 4.2
Dean's List Placements - Semesters **1, 6, 7, 8**

Maliyadeva Balika, Kurunegala, Sri Lanka Feb. 2002 - Aug. 2015
GCE Advanced Level Examination
Z-score - 2.55, National Rank - **107** out of **32393**

WORK EXPERIENCE

Insync Information Technologies, Colombo, Sri Lanka Jul. 2021 - Jul. 2022
Software engineer

- Worked with multiple software engineers to develop a network automation tool
- Updated old code bases to a new scalable architecture by migrating to MERN stack
- Added multiple features to the tool including authentication and authorization, WebSocket updating, and workflow management
- Familiarized and exploited the use of tools such as Flowable, Swagger, and Nginx.

Lanka Electronics, Minuwangoda, Sri Lanka June. 2019 - Dec. 2019
Electronic engineer intern

- Performed preliminary literature research and improved a software package written in C# to perform a welding function with a 6 degree of freedom robot arm.
- Designed a simple human-machine interface to help with direct communication with the robot arm.

PUBLICATIONS

- M. Wijewardena, S. Pathiranage, T. Nanyakkara, **I. Rajapakshe**, S. Charles and T. Samarasinghe, "*Sequence-to-short Sequence Learning with Attention Based Autoencoders for Non-Intrusive Load Monitoring*" (In progress)
- J.Priyankara, **I. Rajapakshe**, M.Rajapaksha, I. T.Piyadigama, "*Hot Plate Temperature Controller*" (Preprint)

SCHOLARSHIPS

- Mahapola Scholarship for Undergraduates awarded by the Government of Sri Lanka. 2016 - 2021

PROJECTS

- Non-Intrusive Real-Time Power Monitor** Feb. 2020 - Jul. 2021
- A smart energy meter with real-time capability that uses Non-Intrusive Load Monitoring technology was to be developed.
 - I developed a web-application to enable users to view the power consumption of individual devices in their household in real-time. <https://elecmoni.web.app/home>
- Trajectory implementation of 6 degree of freedom robot arm** Jun. 2019 - Sep. 2019
- A software that could implement the motion of a 6 degree of freedom robot arm such that it could be used in a welding job was to be developed.
 - I developed the piece of software that allowed users to plan a trajectory in 3D space, and feed them into the 6 motors in the robot arm to execute a smooth motion with a 1% error.
- Touchscreen human-machine-interface** Oct. 2021 - Dec. 2021
- A low cost human-machine-interface capable of controlling a robot arm with limited functionalities was to be designed.
 - I designed and implemented a touchscreen device for under \$50 which was capable of choosing and executing a pre-planned trajectory and creating a new trajectory.
- Automated Shade Net for Orchid Plantations** Jan. 2019 - May 2019
- GitHub - [\[https://github.com/Mevan1996/AutomatedGreenHouse\]](https://github.com/Mevan1996/AutomatedGreenHouse)
- An automatic system capable of controlling the soil water concentration and ambient humidity of a semi-enclosed orchid plantation for an affordable cost for mid-range farmers was to be developed.
 - I did the initial circuit design and the enclosure designs for the finished product.
- Hot Plate Temperature Controller** Oct. 2018 - Dec. 2018
- A device capable of controlling the temperature of a hot plate was to be developed.
 - I did the initial circuit design and calibration of all the variables in the system to achieve the desired control.

SERVICES AND LEADERSHIP

- Committee member - Electronic Club , of University of Moratuwa, Sri Lanka** 2019 - 2020
- Organized Electronic and Telecommunication department Career Fair 2020, and uMora 2020 (an island-wide mathematics competition).
 - Volunteered in conducting robotics workshops for school children in order to encourage pursuing technology-related degrees.
- Treasurer - IEEE IAS Student Branch, University of Moratuwa, Sri Lanka** 2019 - 2020
- Organized workshops to familiarize students from all engineering departments on the use of Arduino, and organized workshops to train the videography team affiliated with IAS student branch.
 - Conducted awareness programs on IAS and its opportunities.
- Department Representative - Department of Electronic and Telecommunication Engineering, of University of Moratuwa, Sri Lanka** 2018 - 2019
- Organized annual department events including ShuttleFest 2018, Abhina 2019 and Tronic Premier League 2018.
 - Volunteered in fund raising activities for ECare which is a project organized by the Electronic Club to give back to school children in underprivileged areas in the country.
- Rotoractor - Rotoract Club University of Moratuwa Student Branch** 2017 - 2020
- Co-chairperson of Inspirer-Gramaprabodhaya 2018 which focused on uplifting the English proficiency of highschool students in Ranugalla-Monaragala.
 - Volunteered in multiple humanitarian projects including Gift a Smile and Intellect.