

RAVISHA RUPASINGHE

COMPUTER ENGINEERING UNDERGRADUATE



+94766995590



ravisha98rupasinghe@gmail.com



Department of Computer Engineering,
University of Peradeniya, Sri Lanka



[ravisha-rupasinghe](#)



[RavishaHR](#)



[Portfolio](#)

Final-year undergraduate experienced with all stages of the development cycle for dynamic web projects. Shows a strong interest in areas related to Machine Learning and Data Science. Currently searching for a job opportunity to widen the scope of knowledge in the interested areas and to obtain more hands-on experience.

EDUCATION

UNIVERSITY OF PERADENIYA

Bachelor of Science in Computer Engineering.
Currently maintains a GPA of **3.92**.

November 2018 - Present

VISAKHA VIDYALAYA

Achieved results: Combined Mathematics (A),
Physics (B) and Chemistry (B) (Medium - English).

2009 - 2017

TECHNICAL SKILLS

- **Languages:** Python, Java, C, HTML/CSS, JavaScript, SQL
- **Developer Tools:** VS Code, PyCharm, Azure, Google Cloud Platform, AWS, Databricks, Git, Postman, Docker
- **Technologies/Frameworks:** Bash scripting/Linux system administration, PySpark, GitHub, Express, React, React Native, Bootstrap, Maven

RELEVANT COURSEWORK

- Machine Learning and Data Mining
- Neural Networks and Fuzzy Systems
- Artificial Intelligence
- Computer Communication Networks
- Data Structures and Algorithms
- Network and Web Application Design
- Software Architecture
- Computer Architecture
- Embedded Systems
- Operating Systems
- Electronics
- Compilers
- Database Management

EXPERIENCE

DATA SCIENTIST INTERN

OCTAVE by John Keells Holdings PLC

December 2022 – May 2023

- Interned at OCTAVE by John Keells Holdings PLC as a Data Scientist in the CCS Team while contributing to two use cases.
- Gained experience in utilizing technologies and libraries such as PySpark, Azure DevOps, Databricks, and Git.
- Developed skills in important Machine Learning aspects such as Data Validation, Feature Engineering techniques, Supervised and Unsupervised Learning, Model Evaluation, and Exploratory Data Analysis.

TEACHING ASSISTANT

University of Peradeniya

June – October 2021

September - November 2022

January - July 2023

- Conducted lessons in Python Programming and development using Arduino in the course GP106, offered by the Computer Department for the First-Year Undergraduates of the University of Peradeniya.
- Assisting practical lab sessions for Third-Year undergraduates in the courses CO323: Networking and CO325: Computer and Network Security.
- Assisting practical lab sessions for Third-Year undergraduates in the course CO326: Industrial Networks.

EXTRACURRICULAR ACTIVITIES

THE CEYLON UNIVERSITY DRAMATIC SOCIETY OF THE UNIVERSITY OF PERADENIYA

Member

PROJECTS

● INVESTIGATING THE BARRIERS TO ENHANCE HUMAN-ML COLLABORATION

Python, LIME, SHAP

May 2023 - Present

- Final year research project that studies the correlations among model predictions and the disagreement among different XAI methods to improve model performance.
- **Skills developed:** Research writing, conducting research, Data preparation, Feature Engineering techniques, model evaluation, XAI methods.
- Visit the [project page](#) and the [GitHub repository](#).

● QUICKPARK - AN E-PARKING SYSTEM

Javascript, Node.js, AWS, React/React Native, MongoDB

July - October 2021

- Cyber-physical systems project to design and implement an E-parking system including hardware nodes, a mobile app, and a management portal.
- **Skills developed:** Database design, UI design, embedded systems design, data structures and algorithms, cybersecurity concepts, quality assurance testing.
- Visit the [project page](#) and the [GitHub repository](#).

● ANALYTICAL SOFTWARE FOR NEXT GENERATION SKIM SEQUENCING DATA

Java, Maven, Linux

February 2022 - Present

- A complete toolkit that incorporates the existing ITS, Mitochondria and Chloroplast sequencing pipelines, and integrates them together in a GUI environment.
- **Skills developed:** Frameworks (Maven), software development, OS aspects.
- Visit the [project page](#) and the [GitHub repository](#).

● A COMPILER FOR COOL PROGRAMMING LANGUAGE

C++

January 2022 - April 2022

- Compiler implementation for the COOL programming language from scratch, developed for the CO521 - Compilers course.
- **Skills developed:** Structure and design of a compiler.

● A SOFTWARE TO PLOT FRACTALS

Java

November 2020 - December 2020

- Design and implementation of a software that plots two of the most popular fractals: Mandelbrot set and Julia set.
- **Skills developed:** OOP concepts in Java.
- Visit the [GitHub repository](#).

● A SIMPLE 8-BIT SINGLE-CYCLE PROCESSOR

Verilog HDL

July 2020 - October 2020

- Design and implementation of a simple 8-bit single-cycle processor which includes an ALU, a register file and control logic, using Verilog HDL.
- **Skills developed:** Flow of data and instructions in a processor, memory sub-systems.

ACHIEVEMENTS

HACKTITUDE BY 99X

January 2022

37th place as a team

Based on technologies such as Node.js/Express, EJS, Javascript and SQLServer.

IEEE WIE HACKDOWN

April 2020

35th place as a team

Participated in the competition organized by University of Moratuwa as a team of two.

REFERENCES

DR. ISURU NAWINNE

isurunawinne@eng.pdn.ac.lk

Senior Lecturer, Department of Computer Engineering, Faculty of Engineering, University of Peradeniya, Sri Lanka

DR. ASITHA BANDARANAYAKE

asithab@eng.pdn.ac.lk

Senior Lecturer, Department of Computer Engineering, Faculty of Engineering, University of Peradeniya, Sri Lanka

DR. DAMAYANTHI HERATH

damayanthiherath@eng.pdn.ac.lk

Senior Lecturer, Department of Computer Engineering, Faculty of Engineering, University of Peradeniya, Sri Lanka