Ravisha Rupasinghe

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Profile

Third-year undergraduate from the Department of Computer Engineering of University of Peradeniya. Experienced with all stages of the development cycle for dynamic web projects. Shows a strong interest in areas related to Machine Learning and UI/UX in web interface development. Currently seeking for an internship opportunity to widen the scope of knowledge in the interested areas and to obtain more hands-on experience.

Education

University of Peradeniya **November 2018 - Present**
*Bachelor of Science in Computer Engineering. Currently maintains a GPA of **3.92**.* *Peradeniya, Kandy*

Visakha Vidyalaya **2009 - 2017**
Achieved results A, B, B for Combined Mathematics, Physics and Chemistry respectively (Medium - English). *Colombo 05*

Technical Skills

Languages: Python, Java, C, HTML/CSS, JavaScript, SQL
Developer Tools: VS Code, Azure, Google Cloud Platform, AWS, Git, Postman, Docker
Technologies/Frameworks: Linux, React, React Native, GitHub, Express, Bootstrap, Maven

Interests

- Machine Learning and Data Mining
- Deep Learning
- Natural Language Processing
- Artificial Intelligence

Relevant Coursework

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

Experience

University of Peradeniya **June – October 2021**
Volunteer Instructor *Peradeniya, Kandy*

- Conducted lessons related to 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.
- Was responsible for 35 students and assisted them with their lab coursework for a period of one semester.

Projects

QuickPark - An E-Parking System | *Javascript, Node.js, AWS, React/React Native, MongoDB* **July - October 2021**

- The focus of this project was to eliminating the overheads and inefficiencies associated with manual parking systems in order to provide a comprehensive solution which addresses the concerns of both the consumers as well as the owners of the parking lot.
- The third-year cyber-physical systems project which required skills for both frontend and backend development.
- **Techniques and skills developed:** Database designing and development, UI designing, embedded systems designing, proper usage of data structures and algorithms, application of cybersecurity concepts, quality assurance testing.
- Visit the project page.

Analytical Software for Next Generation Skim Sequencing Data | *Java, Maven, Linux* **February 2022 - Present**

- A third-year project carried out as a part of the coursework. This project combines researched pipelines for Skim sequencing data analysis to develop a comprehensive toolkit.
- It is an open-source package that incorporates the existing ITS, Mitochondria and Chloroplast sequencing pipelines, and integrates them together to produce a complete toolkit.

- The project focuses on minimizing the inefficiencies faced by professionals who conduct NGS for Chloroplast, Mitochondria and plant ITS regions and contains a GUI environment that integrates all the necessary tools for the pipelines into a single space.
- **Techniques and skills developed:** Using frameworks such as Maven, software development, considering OS aspects, Natural Language Processing.
- Visit the project page.

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.
- **Techniques and 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.
- **Techniques and 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.
- **Techniques and skills developed:** Flow of data and instructions in a processor, memory sub-systems.

Achievements

Hacktitude by 99x **January 2022**

37th place as a team

- Participated in the competition organized by 99x as a team of three.
- The competition was based on developing backend and and frontend systems.
- Based on technologies such as Node.js/Express, EJS, Javascript and SQLServer.
- Achieved 37th place out of 200 participant teams.

IEEE WIE Hackdown **April 2020**

35th place as a team

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

Extracurricular Activities

The Ceylon University Dramatic Society of the University of Peradeniya **2019**

Member

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**

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