# RAVISHA RUPASINGHE

Department of Computer Engineering, University of Peradeniya, Sri Lanka

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⭘ RavishaHR   Portfolio

## 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, Sri Lanka*

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

## TECHNICAL SKILLS

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

## 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
*Teaching Assistant*                                             *Peradeniya, Sri Lanka*

- 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 goal of this third-year cyber-physical systems project was to design and implement an E-parking system which includes several hardware nodes, a mobile app for the users and a management portal for the car park owners.
- **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, the GitHub repository or the project presentation.

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

- An open-source package that incorporates the existing ITS, Mitochondria and Chloroplast sequencing pipelines, and integrates them together in a GUI environment to produce a complete toolkit.
- **Techniques and skills developed:** Using frameworks such as Maven, software development, considering OS aspects, Natural Language Processing.
- Visit the project page, the GitHub repository or the project presentation.

**A compiler for COOL programming language** | *C++*                    <span style="float:right">**January 2022 - April 2022**</span>
- 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*                    <span style="float:right">**November 2020 - December 2020**</span>
- 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*                    <span style="float:right">**July 2020 - October 2020**</span>
- 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**                    <span style="float:right">**January 2022**</span>
*37th place as a team*
- 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**                    <span style="float:right">**April 2020**</span>
*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**                    <span style="float:right">**2019**</span>
*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**
*Senior Lecturer, Department of Computer Engineering, Faculty of Engineering University of Peradeniya, Sri Lanka*