

# ISURI DEVINDI

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github.com/isuridevindi | Syncfusion blog | isuridevindi.medium.com

## **ABOUT ME**

I am a 3<sup>rd</sup> year computer engineering undergraduate, interested in all phases of software development from UI/UX designing to database management, and also computer vision and machine learning. I am currently seeking internship opportunities to enhance my skills.

## TECHNICAL SKILLS

Python, C/C++, Java, JavaScript, HTML/CSS, SQL, Verilog HDL, Languages

ARM Assembly Language

**Frameworks** React.js, Express.js

TensorFlow, Keras, OpenCV, Libraries NumPy, Matplotlib, pandas

## **EDUCATION**

**University of Peradeniya** 2018 Nov - Present

BSc.Eng(Hons.) in Computer Engineering Field Rank - 1/60, Batch Rank - 1/415 GPA-4.00/4.00

Hillwood College, Kandy 2004 - 2017

G.C.E. Advanced Level Examination District Rank - 6, National Rank - 113

**Z-Score**: 2.2768

**CIMA Certificate level completion** 2018

Fit-in-Deutsch 2 2014

Passed with 73 marks (out of 80)

## **ACHIEVEMENTS**

**IEEEXtreme 14.0** 24 hour global algorithmic programming competition

Country Rank - 68, Global Rank - 724 (Out of 2000+ teams)

**Hacktitude** | Inter-university hackathon organized by 99x

Rank - 32 (Out of 200+ teams)

**Hackfest** | Inter-university hackathon organized by ACES, University of Peradeniya 2022

Rank (Healthcare category) - 1 (Out of top 20 teams)

Hackdown Inter-university coding competition organized by IEEE WIE Student branch of University of Moratuwa 2019

Rank - 37 (Out of 100+ teams)

## **PROJECTS**

## Oral cavity region detection system | Group |



2022 - Present

2020

2022

- · A web-based application that can be used to upload images of an oral cavity and segment the anatomical structures present in the image using a machine learning model.
- Contribution: Exploring the potential of U-Net and Mask R-CNN models in developing a machine learning solution to segment the oral cavity images.
- Technology: TensorFlow, Keras, React.js, Express.js, MongoDB, Node.js
- Techniques: U-Net, Mask R-CNN

## Reconstructing highly degraded license plates | Group |







2022

- · Demonstration of the efficacy of traditional image processing techniques to reconstruct highly degraded images of license plates obtained from CCTV footage, when the source of degradation is unknown.
- · Technology: Python, OpenCV, EasyOCR
- Techniques: Otsu thresholding, Morphological transformation, Contouring, Spatial and Frequency domain filtering and Degradation modeling(Wiener Filter)







- Contribution: Designing a scalable web application for administrators of the university and proctors of examinations. Developing the hardware solution for the device using Raspberry Pi micro-controller.
- Technology: React.js, Express.js, MongoDB, Node.js
- Techniques: Handling and synchronization of API requests & responses with promised-based library Axios.

## Compiler for COOL Language | Group |



2022

- The combination of a lexer, parser, semantic analyzer, and code generator that can be used to compile programs written in the COOL programming language.
- Technology: C++
- Techniques: Utilization of concepts such as Finite State Machines, Abstract Syntax Trees and tools such as Flex and Bison, to convert COOL to MIPS assembly language

## <u>Database system for business to business trade</u> | Group | Group |



2020

- A fully functional database to organize transactions between businesses with a user-friendly interface.
- Contribution: Developing the database
- Technology: MySQL, PHP, Django

#### Tool to generate and display fractals | Individual |



2020

- A tool to display two fractal sets: Mandelbrot and Julia set, according to user preferences.
- · Technology: Java
- Techniques: Multi-threading, Synchronization Primitives

## 8-bit single cycle processor | Group |



2020

- An 8-bit single cycle CPU with associated memory hierarchy. The processor includes an ALU, register files, control logic, forwarding unit, data memory, data cache, instruction memory and instruction cache.
- Technology: Verilog-HDL
- Techniques: RISC-V, Caching

## **EXPERIENCE**

#### **Technical article writer**

2021 Feb - Present

Medium blog | Syncfusion blog | Enlear Pvt. Ltd.

#### **Casual Instructor**

Department of Computer Engineering, University of Peradeniya

• CO322: Data Structures and Algorithms

2022 Oct- Present

Supervising weekly 2hr long lab sessions, preparing tutorials related to data structures and algorithms.

• CO253: Introduction to Programming and Networking

2021 Nov- 2022 Jan

Supervised weekly 2hr long online lab sessions based on C programming Language.

• CO222: Programming Methodology

2021 May- 2021 Sep

Supervised weekly 2hr long online lab sessions, created questions for online quizzes based on the C programming Language.

## EXTRA-CURRICULAR ACTIVITIES & LEADERSHIPS HELD

Member of the Web Consultation team of University of Peradeniya Secretary in IET on Campus of the University of Peradeniya President of the Music Society of the University of Peradeniya

2020 - Present

2022 - Present

2022 - Present

## REFERENCES

#### Prof. Roshan G. Ragel | roshanr@eng.pdn.ac.lk

Head of Department, Department of Computer Engineering, Faculty of Engineering, University of Peradeniya, Sri Lanka.

#### Dr. Isuru Nawinne isurunawinne@eng.pdn.ac.lk

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