Isuri Devindi

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I am a 3rd 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.

EDUCATION

University of Peradeniya	2018 Nov - Present
BSc.Eng(Hons.) in Computer Engineering	*GPA:* **4.00/4.00**
Field Rank - 1/60, Batch Rank - 1/415	

Hillwood College, Kandy	2004 - 2017
G.C.E. Advanced Level Examination	*Z-Score: 2.2768*
District Rank - 6/2784, National Rank - 113/32075	

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	2020
Country Rank – 68, Global Rank – 724 (Out of 2000+ teams)	

Hacktitude | An inter-university hackathon organized by the company 99x	2022
Rank – 32 (Out of 200+ teams)	

Hackfest | An inter-university hackathon organized by the University of Peradeniya	2022
Rank (Healthcare category) – 1 (Out of top 20 teams)	

Hackdown | An inter-university coding competition organized by IEEE WIE Student branch of University of Moratuwa, Sri Lanka	2019
Rank – 37 (Out of 100+ teams)	

PROJECTS

Oral cavity region detection system | *Group* | 🌐 | ⦿   2022 - Present
- 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)**

Remote proctoring system | *Group* | 🌐 | ⦿ | ▶   2021 - Present
- A single device with video streaming facility which integrates the hardware and software components needed to conduct virtual proctoring of an examination in a university.
- 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.

Database system for business to business trade | *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 file, control logic, forwarding unit, data memory, data cache, instruction memory and instruction cache.
- Technology: Verilog-HDL
- Techniques: **RISC-V, Caching**

EXPERIENCE

Technical article writer | **Medium blog** | **Syncfusion blog** | **Enlear Pvt. Ltd.**   2021 Feb - Present

Casual Instructor | ***Department of Computer Engineering, University of Peradeniya***

    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

TECHNICAL SKILLS

Languages	C, Python, Java, HTML/CSS, JavaScript, SQL, Verilog HDL, ARM Assembly Language
Frameworks	React.js, Express.js
Developer Tools	Git, Google Cloud Platform, VS Code
Libraries	TensorFlow, Keras, OpenCV, NumPy, Matplotlib, pandas

SOFT SKILLS

Technical Writing: Currently working as a technical writer at Enlear Private Limited, writing content related to software application development.

Public Speaking: Moderated several virtual events organized by IET On Campus University of Peradeniya and virtual and physical events organized by the Faculty of Engineering, University of Peradeniya.

EXTRA-CURRICULAR ACTIVITIES & LEADERSHIPS HELD

Member of the Web Consultation team of University of Peradeniya	2020 - Present
Secretary in IET on Campus of the University of Peradeniya	2022 - Present
President of the Music Society of the University of Peradeniya	2021 - 2022
Member of the Rotaract club of the University of Peradeniya	2020 - Present
Member of the Dramatic Society of the University of Peradeniya	2020 - Present

REFERENCES

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