SASHINI LIYNAGE

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 github.com/SashiniLiyanage   sashiniliyanage.github.io

EDUCATION

University of Peradeniya	Nov. 2018 – present
Third year undergraduate in Computer Engineering (BSc. Engineering(Hons.))	cGPA: 3.90/4.00

Pushpadana Girls College, Kandy	2015 – 2017
G.C.E Advanced Level Examination	Provincial Rank - 05/2784
Physics(A), Chemistry(A), Combine Mathematics(A)	National Rank - 80/32075

TECHNICAL SKILLS

Programming Languages:	Python, Javascript, Java, C, Verilog HDL, ARM assembly
Web Development:	HTML5, CSS, Bootstrap, ReactJS, ElectonJS, NPM
Database Systems:	MongoDB
Graphics Editing:	Adobe Illustrator

RELEVANT COURSEWORK

Machine Learning	Image Processing	Software Construction	Database Systems
Software Engineering	Communication Network	Operating Systems	Computer Architecture

PROJECTS

Remote Proctoring Device — Group —   July 2021

A single device which integrates the hardware and software components needed to conduct an examination in online mode with no technical interruption.

Technologies:	ReactJS, ElectronJs, Nodejs, MongoDB, Rest API, AWS
Contribution:	Desktop app development, Hardware design

Oral Cavity Region Detection System — Group —   Jan 2022

A web-based tool to segment the known normal regions of the oral cavity. Sub project of oral cancer detection

Technologies:	ReactJS, Nodejs, MongoDB, Rest API, Keras,Tensorflow, Tensorflow.js
Contribution:	Web app development, Backend development, Python server

Reconstructing highly degraded license plates — Group —   2022

A procedure to extract a number plate from an image and reduce several noises due to low resolution, high or low lighting, and motion blur to reconstruct highly degraded images of license plates.

Technologies:	Python, OpenCV, EasyOCR
Techniques:	Spatial and Frequency domain filtering and Degradation modeling

Compiler for COOL — Group —   2022

Implement a lexical analyzer, parser, semantic analyzer, and code generator to compile programs written in the COOL: Classroom Object-Oriented Language.

Technologies:	C++
Techniques:	Abstract Syntax Trees, Flex and Bison, MIPS assembly.

Multi-threaded chat server — Individual —   2022

A chat server that will accept connections from clients and would let clients send in strings over the network using multi-threads in Java.

| Technologies: | Java |
| Techniques: | Multi-threading, Synchronization Primitives |

8-bit single cycle processor — Group — ⭘ 2021

Implement a simple 8-bit single-cycle processor which includes an CPU with data memory unit and data cache using Verilog HDL

| Technologies: | Verilog-HDL |

ACHIEVEMENTS

Hacktitude 2022

An inter-university hackathon organized by the company 99x

Rank – 32 (Out of 200+ teams)

Hackfest 2022

An inter-university hackathon organized by the University of Peradeniya

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

ACES Coders v8.0 2019

An inter-university 12-hours coding competition organized by University of Peradeniya.

Rank – 43 (Out of top 120 teams)

TEACHING EXPERIENCE

Casual instructor

CO224 Computer Architecture - Department of Computer Engineering	Nov 2021 - March 2022
CO321 Embedded Systems - Department of Computer Engineering	Oct 2022 - present
CO325 Computer and Network Security - Department of Computer Engineering	

Volunteer teacher - Nanathambara 2022 March 2022

Webinar series on Arduino and python programming for school students organized by ACES University of Peradeniya

EXTRACURRICULAR

Member of the Rotaract club of university of Peradeniya 2019 - present

Project NextStep360 organizing committee member

Digital Media team member

Member of Design Team of ACES and Hackers' Club 2022

Member of the Dramatic Society of the University of Peradeniya Dec 2019 - 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

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