

# SASHINI LIYNAGE

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## EDUCATION

### University of Peradeniya

3rd year undergraduate in Computer Engineering (BSc. Engineering(Hons.))

Nov. 2018 – present

cGPA: 4.00/4.00

### Pushpadana Girls College, Kandy

G.C.E Advanced Level Examination

Physics(A), Chemistry(A), Combine Mathematics(A)

2015 – 2017

Provincial Rank - 5

National Rank - 80

## TECHNICAL SKILLS

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

## RELEVANT COURSEWORK

Software Construction	Database Systems	Software Engineering	Electronics
Image Processing	Compilers	Computer Architecture	Digital Design
Machine Learning	Signal Processing	Communication Network	Operating Systems

## PROJECTS

### Remote Proctoring Device — [repository](#) — [project page](#)

July 2021 - Dec 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 — [repository](#) — [project page](#)

January 2022 - present

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

### Reconstructing highly degraded license plates — [colab](#) — [project report](#)

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 — [repository](#)

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.

### 8-bit single cycle processor — [repository](#)

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

### **Multi-threaded chat server** — repository

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

## **ACHIEVEMENTS**

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### **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)

## **TEACHING EXPERIENCE**

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### **Casual instructor**

Nov 2021 - March 2022

CO224 Computer Architecture - 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**

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### **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 Department of Computer Engineering**

Dec 2021 - present

### **Member of the Dramatic Society of the University of Peradeniya**

Dec 2019 - present

## **REFERENCES**

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### **Dr. Isuru Nawinne**

Senior Lecturer,

Department of Computer Engineering,

Faculty of Engineering,

University of Peradeniya, Sri Lanka

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