



# DINURA DISSANAYAKE

DEPARTMENT OF COMPUTER ENGINEERING, UNIVERSITY OF PERADENIYA, SRI LANKA

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## EDUCATION

**UNIVERSITY OF PERADENIYA** DECEMBER 2018 – PRESENT  
BSc Engineering (Hons) — Faculty of Engineering  
GPA - 3.77 / 4.0

**D.S. SENANAYAKE COLLEGE** DECEMBER 2009 – AUGUST 2017  
G.C.E. Advance Level Examination  
Comb. Maths (A), Physics (B), Chemistry (B)

## PROFILE

I'm a 3rd-year computer engineering undergraduate with a keen interest in machine learning, computer vision, and embedded systems.

## ACHIEVEMENTS

**TOP 500TH PLACE AMONG 6000+ TEAMS - IEEEEXTREME 16.0** 2022

- Top 10th country rank
- 24 hour competitive programming competition for university undergraduates worldwide.

**5TH PLACE(OUT OF 100+ TEAMS) - MINI HACKATHON - ICDS** 2021

- Developed a Bill checking mechanism using OCR.
- Data Science Hackathon organized by the University of Colombo

**14TH PLACE(OUT OF 100+ TEAMS) - ACES CODERS** 2020

- Overnight inter-university coding competition organized by University of Peradeniya

**BORNZE MEDALIST SRI LANKAN PHYSICS OLYMPIAD** 2017

- Organized by the Institute of Physics, Sri Lanka

## PROJECTS

**REMOTE KEYBOARD TUTORING SYSTEM** | Group Project |    2021

- A web-based system interactively learns plays or teaches with the aid of a hardware unit and a web application.
- Technologies - React JS, Node JS, Express, Flutter, Embedded Systems

**ANALYSIS TOOL FOR INDUSTRIAL IMAGES** | Group Project |   2022

- An analysis tool for increasing the performance of an injection mold maintenance device that uses image processing techniques to identify stuck plastic particles on molds.
- Technologies - React JS, Node JS, Express, Python

**8-BIT SINGLE CYCLE PROCESSOR** | Group Project |  2021

- 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.
- Technologies - Verilog-HDL

## COMPILER FOR COOL LANGUAGE | Group Project | 2021

- The combination of a lexer, parser, semantic analyzer, and code generator can be used to compile programs written in Cool programming language.
- Technologies - C++

## CRC USING CUSTOMIZED NIOSII PROCESSOR | Individual Project | 2022

- Improved performance of the Cyclic-Redundancy-Check algorithm by adding a custom instruction to the MIPS ISA of NiosII processor.
- Implementation of hardware functionality using XOR and shift operations.
- Technologies - FPGA, C

## IMAGE PROCESSING TECHNIQUES TO DETECT DAMAGED FRUIT | Group Project | 2019

- Image Filtering with OpenCV was used to create an algorithm to detect the deformities of fruit. Created an application using python to continuously monitor a given set of images.
- Technologies - Python, OpenCV, Kanny, Sobel

## TECHNICAL SKILLS

- **Languages:** Python, Java, C, HTML/CSS, JavaScript, SQL, C++, ARM Assembly, Verilog-HDL
- **Frameworks:** React JS, Express, Node JS, Flutter, Jekyll
- **Graphic Designing:** Photoshop, Illustrator, Blender, Premier Pro

## EXPERIENCE

### TEACHING ASSISTANT - CO 222 - PROGRAMMING METHODOLOGY MAY 2020 - SEPTEMBER 2020

- Supervised and helped students in weekly 2hr long online lab sessions
- Created questions for online quizzes based on the C programming Language

### VOLUNTEER WEB DEVELOPER NOVEMBER 2022 - PRESENT

- Developing the official website for the Embedded Systems and Computer Architecture Laboratory in the Computer Engineering Department, University of Peradeniya

## LEADERSHIP / EXTRACURRICULAR

### AIESEC IN UINIVERSITY OF PERADENIYA DEC 2019 – FEBRUARY 2022

- Marketing Manager - Incoming Global Volunteer SEPTEMBER 2021 - FEBRUARY 2022
- Business to Business Manager - Incoming Global Volunteer MARCH 2021 - AUGUST 2021
- Team Leader - Incoming Global Volunteer SEPTEMBER 2020 - FEBRUARY 2021
- Value Delivery Team Leader - Incoming Global Volunteer MARCH 2021 - AUGUST 2021

### AIESEC IN SRI LANKA DEC 2019 – JUL 2022

- Incoming Global Volunteer Task Force Member SEPTEMBER 2020 - DECEMBER 2021
- Media Specialist(Radio) - Public Relations Team - Youth4Youth FEBRUARY 2022 - PRESENT

## RECOMMENDATION

### PROF. ROSHAN G. RAGEL

Head of Department,  
Department of Computer Engineering,  
Faculty of Engineering,  
University of Peradeniya, Sri Lanka.  
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### DR. ISURU NAWINNE

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