







# ISURI DEVINDI

Department of Computer Engineering,  
University of Peradeniya, Sri Lanka

 [isuridevindi.github.io](https://github.com/isuridevindi)  
 +94 71 371 3686  
 Technical blog

 [gaisuridevindi@gmail.com](mailto:gaisuridevindi@gmail.com)  
 [github.com/isuridevindi](https://github.com/isuridevindi)  
 [/in/isuri-devindi](https://in.linkedin.com/in/isuri-devindi)

My primary research interest evolve around applying **Machine Learning** and **Computer Vision** techniques in **biomedical context**. I am also interested in building low-energy pervasive sensing applications using **Neuromorphic vision sensors**.

## EDUCATION

### BSc.Eng (Hons.) in Computer Engineering

University of Peradeniya  
2018 Nov - 2023 Dec

GPA: **4.00/4.00**  
Class rank: **1/415**  
First Class Hons.

### G.C.E. Advanced Level Examination

Hillwood College, Kandy  
2004 - 2017

Z-Score: **2.2768**  
District rank: **6/2784**  
National Rank: **113 / 32075**

## EXPERIENCE

2024 Jan  
- Present

### Instructor

**Department of Computer Engineering, University of Peradeniya, Sri Lanka**  
Computer Architecture (CO224), Image Processing (CO543), Operating Systems (CO327)

2023 Jan  
- 2023 May

### Visiting Research Assistant Supervised by Prof. Archan Misra

**Pervasive Sensing & Systems Lab, Singapore Management University**  
Exploring spatiotemporal compressive sensing techniques for event-based data fed into and processed by Spiking Neural Networks.

2021 - 2022

### Teaching Assistant

**Department of Computer Engineering, University of Peradeniya, Sri Lanka**  
Embedded Systems (CO321), Data Structures and Algorithms (CO322), Programming and Networking (CO253), Programming Methodology (CO222)

2021 - Present

### Technical Article Writer (Part-time)

**Enlear Pvt. Ltd**  
Writing technical content on computer vision, machine learning, and web development.

## PUBLICATIONS

IEEE Access  
Under Review



### Multimodal Deep Convolutional Neural Network Pipeline for AI-Assisted Early Detection of Oral Cancer

**Isuri Devindi**, Dinura Dissanayake, Sashini Liyanage, Achintha Harshamal, Dhanushki Mapitigama, Nadisha Piyarathne, Kalani Hettiarachchi, Sumudu Rasnayaka, Ruwan Jayasinghe, Roshan Ragel, Isuru Nawinne

Scientific Reports  
Under Review



### A Novel ECG Compression Algorithm Using PWM-Integrated Quantization for Low-Power Real-Time Monitoring

**Isuri Devindi**, Sashini Liyanage, Titus Jayarathna, Janaka Alawatugoda, Roshan Ragel

Oral Oncology Reports  
Under Review



### Comprehensive Dataset of Annotated White Light Images of Oral Cavity and Novel Web Tool for Image Annotation

N. S. Piyarathne, S.N. Liyanage, R.M.S.G.K. Rasnayaka, P.V.K.S. Hettiarachchi, **G.A.I. Devindi**, F.B.A.H. Francis, D.M.D.R. Dissanayake, R.A.N.S. Ranasinghe, M.B.D. Pavithya, I. Nawinne, R.G. Ragel, R.D. Jayasinghe






## ACHIEVEMENTS

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- 2024 **[Gold medal for excellence in Computer Engineering](#)**  
Awarded for the best performance at the Department of Computer Engineering, University of Peradeniya (Out of 60)
- 2024 **[Prize for Engineering Mathematics](#)**  
Prof. T.D.M.A. Samuel prize awarded for the enthusiasm and excellence in Engineering Mathematics at the Faculty of Engineering, University of Peradeniya (Out of 415)
- 2023 **[Bronze Award in NBQSA 2023](#) | [National ICT Awards](#)**  
**Bronze** award in Tertiary Student Projects (Technology) (Out of 46 teams) for the project "Oral Cavity Image Annotation and Cancer Prediction from White Light Images"
- 2022 **[IEEE Xtreme 16.0](#) | [24 hour global algorithmic programming competition](#)**  
Team Name – bitLasagna, Country Rank – 27, Global Rank – 427  
(Out of 14600+ participants)

## OTHER PROJECTS

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- 2022 Jan  
- 2022 March  
  **[Reconstructing Highly Degraded License Plates](#) | [Group](#)**  
**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
- 2021  
  **[Remote Proctoring System](#) | [Group](#)**  
**A single device with video streaming facility that integrates the hardware and software components needed to conduct virtual proctoring of an examination in a university.**  
Technology: React.js, Express.js, MongoDB, Node.js
- 2020  
 **[8-bit single cycle processor](#) | [Group](#)**  
**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

## EXTRA-CURRICULAR ACTIVITIES & LEADERSHIPS HELD

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- 2020 - 2024 **[Member of the Web Consultation team of University of Peradeniya](#)**  
2022 - 2023 **[Secretary in IET on Campus of the University of Peradeniya](#)**  
2021 - 2022 **[President of the Music Society of the University of Peradeniya](#)**

## REFERENCES

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**[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*  
**[Prof. Archan Misra](#)** | archanm@smu.edu.sg  
*Vice Provost (Research), School of Computing & Information Systems, Singapore Management University, Singapore*