IRASH PERERA

B.Sc. Engineering Honours Computer Science and Engineering Undergraduate, University of Moratuwa.

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EDUCATION

- B.Sc. (Hons) in Computer Science and Engineering, specializing in Data Science and Engineering.
 - o University of Moratuwa

(2021 - Present)

- o CGPA: 3.8514 / 4
- Dean's List: Achieved every semester to date. (Semester 1 3.85, Semester 2 3.84, Semester 3 3.86)
- GCE Advanced Level Examination Physical Science Stream
 - Central College, Anuradhapura

(2020)

- o Island Rank: 379
- **Z-score**: 2.2812
- combined Mathematics A/ Physics A/ Chemistry A/ General English A
- GCE Ordinary Level Examination
 - o Central College, Anuradhapura

(2017)

8As and 1B, B for English Literature

PROJECTS (View on Portfolio \square)

- 1. **EduGenius** A multimodal educational AI assistant, including Retrieval-Augmented Generation (RAG), to dynamically generate contextually relevant guidance and explanations for the students in math problems offering a comprehensive and interactive tutoring experience by delivering real-time feedback, and performance tracking. (Ongoing)
- 2. **PlateVisionAl** A project that aims to automate the process of license plate recognition and vehicle tracking.
- 3. **Research Companion** Al assistant to extract precise information from research papers and articles.
- 4. **HR Management System** A fully comprehensive full stack HR management system to manage employee profiles, leave requests, approvals, and report generation, while offering customizable features and non-functional requirements.
- 5. **VirtualFingerMouse** A system to control the computer only with hand gestures without using a mouse.
- 6. **Object Tracking System** A system to track people in urban areas. \square
- 7. **Multiple Hand Gesture Detection System** A simple application to detect most common hand gestures with a model trained with custom dataset.

- 8. **Natours** A backend RESTful API for providing robust functionality for tour management along with integrated comprehensive frontend development.
- 9. **RPAL Language Project** A python-based interpreter for the Right Reference Pedagogic Algorithmic Language.
- 10. **Pintos OS Projects** Two projects focused on two core modules in Pintos an interactive shell initialization and user program functionalities.
- 11. **Nano Processor Digital Design Project** Digital design of 4-bit nano processor with integrated multiple components and capabilities of executing simple instructions.

TECH STACK

Languages		Machine Learning and Data Processing		Application Development	
Python	HTML	Scikit-learn	Pandas	NodeJS	React
С	PUG	Keras	TensorFlow	Streamlit	Git
C++	CSS	NumPy	Langchain	MongoDB	MySQL
Java	TypeScript	Chroma	OpenCV		
JavaScript		Mediapipe	Langfuse		

HONORS AND AWARDS (View on Portfolio \Box)

- 1. 1st Place Cypher 2.0 Inter-University Hackathon, organized by Kothalawala Defence University and AION Campus Pvt. Ltd. (March 2024)
- Finalist Crack the Code Enigma '24 Hackathon, organized by the Mathematical Society of the University of Moratuwa. (March 2024)
- 3. **Dean's List** Consistently achieved from Semester 1 to Present.

(2021 – Present)

4. **3rd Best All-Island Performance** - Senior Division, 2019 Australian National Chemistry Quiz, organized by the Royal Australian Chemical Institute and conducted by the Institute of Chemistry Ceylon.

(November 2019)

5. Awarded for Academic Performance - A/ Central College Prize Giving, 7 consecutive years

(2014-2020)

VOLUNTEERING

1. Organizing Committee Member - EXMO 2023

An esteemed member of the Organizing Committee for EXMO 2023, the flagship technological exhibition of the University of Moratuwa (2023)

2. **Design Team Lead - VRCADE 2.0**

Volunteered as Design Team Lead in VRCADE 2.0 which is organized by the IEEE Student Branch,
University of Moratuwa. (2024)

3. Design Team Member - VRCADE

Volunteered as Design Team Member in VRCADE which was organized by the IEEE Student Branch, University of Moratuwa. (2023)