Resume

Dinura Dissanayake

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EDUCATION

University of Peradeniya

Dec 2018 - Dec 2023

Bachelor of Science of Engineering (Hons) in Computer Engineering

CGPA 3.75/4.00

• Bronze award at NBQSA 2023 in tertiary Student Projects in NBQSA 2023 (National ICT Awards)

PUBLICATIONS

All Languages Matter: Evaluating LMMs on Culturally Diverse 100 Languages - CVPR 2025 Highlight

• Ashmal Vayani, **Dinura Dissanayake**, Hasindri Watawana, Noor Ahsan, Omkar Thawakar, Aman Chadha, Hisham Cholakkal, Rao Muhammad Anwer, Michael Felsberg, Jorma Laaksonen, Thamar Solorio, Monojit Choudhury, Ivan Laptev, Mubarak Shah, Salman Khan, Fahad Khan

LlamaV-o1: Rethinking Step-by-step Visual Reasoning in LLMs - ACL 2025 Findings

• Omkar Thawakar, **Dinura Dissanayake**, Ketan More, Ritesh Thawkar, Ahmed Heakl, Jean Lahoud, Rao Muhammad Anwer, Hisham Cholakkal, Ivan Laptev, Mubarak Shah, Fahad Shahbaz Khan, Salman Khan

DriveLMM-o1: A Step-by-Step Reasoning Dataset and Large Multimodal Model for Driving Scenario Understanding - IROS 2025 Oral Presentation

• Ayesha Ishaq, Jean Lahoud, Ketan More, Omkar Thawakar, Ritesh Thawkar, **Dinura Dissanayake**, Noor Ahsan, Yuhao Li, Fahad Shahbaz Khan, Hisham Cholakkal, Ivan Laptev, Rao Muhammad Anwer, Salman Khan

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

• GAI Devindi, **DMDR Dissanayake**, SN Liyanage, FBAH Francis, MBD Pavithya, NS Piyarathne, PVKS Hettiarachchi, RMSGK Rasnayaka, RD Jayasinghe, RG Ragel, I Nawinne

A comprehensive dataset of annotated oral cavity images for diagnosis of oral cancer and oral potentially malignant disorders - ScienceDirect Oral Oncology

NS Piyarathne, SN Liyanage, RMSGK Rasnayaka, PVKS Hettiarachchi, GAI Devindi, FBAH Francis, DMDR
Dissanayake, RANS Ranasinghe, MBD Pavithya, IB Nawinne, RG Ragel, RD Jayasinghe

Research Projects

Unified Vision-Language Action Model (2025)

• Exploring reasoning trace integration with Embodied Vision datasets (OpenX, BridgeV2) to enhance interpretability and step-wise decision-making in embodied AI tasks.

A Culturally-diverse Multilingual Multimodal Video Benchmark & Model (2025)

• Developed ViMUL-Bench, a multilingual video benchmark and model to evaluate and improve cultural and linguistic inclusivity in video large multimodal models across 14 languages.

A Step-by-Step Reasoning Dataset and Large Multimodal Model for Driving Scenario Understanding (2025)

- Developed DriveLMM-o1, a benchmark and multimodal model to advance step-by-step visual reasoning for autonomous driving scenarios.
- \bullet Accepted to IROS 2025 as an Oral Presentation

Rethinking Step-by-step Visual Reasoning in LLMs (2025)

- Developed a benchmark, evaluation metric, and multimodal model (LlamaV-o1) to advance step-by-step visual reasoning in large language models.
- Accepted as a ACL 2025 Findings paper

Evaluating LMMs on Culturally Diverse 100 Languages (2024)

 Introduced a culturally and linguistically diverse multilingual conversation benchmark to assess the capabilities of existing VLMs

Early Detection of Oral Cancer (2024)

- Research with a main focus of collecting an Oral Cavity dataset that is suitable for South Asians regions.
- Present a multimodal deep convolutional model to predict oral cancer using image and metadata.
- Neural Network Pipeline for AI-Assisted Early Detection of Oral Cancer published in IEEE Access
- A comprehensive dataset of annotated oral cavity images for diagnosis of oral cancer and oral potentially malignant disorders accepted as a journal paper as Oral Oncology.

End-to-End Planning-Oriented Autonomous Driving (2023)

- Improve already existing trajectory-guided control prediction method.
- Introduced depth information to the end to end system using the same monocular camera and introduced Model Predictive Control to the system.

EXPERIENCE

Mohamed Bin Zayed University of Artificial Intelligence

Apr 2024 – Present

Research Associate

- Supervisor: Prof. Fahad Khan, Dr. Salman Khan
- Working on Multimodal reasoning, Cultural Understanding of Multimodal Models, and Embodied Vision

WSO2 Dec 2022 – May 2023

 $Software\ Engineering\ Intern$

• Creating a GraphQL API to streamline Salesforce and Stripe payments.

Department of Computer Engineering, University of Peradeniya, Sri Lanka Aug 2021 – Oct 2022 Teaching Assistant

• Embedded Systems (CO321), Data Structures and Algorithms (CO322), Programming and Networking (CO253), Programming Methodology (CO222)

Selected Achievements

Bronze Award NBQSA 2023 (National ICT Awards)

2023

• Won the bronze award at NBQSA 2023 in tertiary Student Projects (Technology) category

2nd Place(Out of 100+ Teams) - ACES Coders V 9.0

2022

Overnight inter-university coding competition organized by University of Peradeniya

Top 300^{th} World Among 6000+ Teams - IEEEXTREME 16.0

2022

- 8th place in the country.
- 24 hour competitive programming competition for university undergraduates worldwide.

5^{th} Place(Out of 100+ Teams) - MINI HACKATHON - ICDS

2021

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

Bronze Medalist Sri Lankan Physics OLYMPIAD

2017

• Organized by the Institute of Physics, Sri Lanka

TECHNICAL SKILLS

- $\bullet \ \ Programming \ Languages: \ Python, \ MATLAB, \ Java, \ C++, \ ARM \ Assembly, \ Verilog-HDLAB, \ ARM \ ARM \ Assembly, \ ARM \ ARM \ Assembly, \ Verilog-HDLAB, \ ARM \$
- ML Libraries: Pytorch, OpenCV, Scikit-learn, Keras
- FPGA designing and programming (C++)
- IoT:Node-RED, ESP32, MQTT

Club Activities/ Leadership

AIESEC in University of Peradeniya, Sri Lanka

- Marketing Manager Incoming Global Volunteer Sept 2021 Feb 2022
- Business to Business Manager Incoming Global Volunteer March 2021 Aug 2021
- Team Leader Incoming Global Volunteer Sept 2020 Feb 2021

Music Society of University of Peradeniya

• Member Coordinator Sept 2021 - Sept 2022