Kavindu Piyumal

Skills

Languages Python

Assembly FPGA

Madala

Matlab

Libraries

PyTorch

Fastai

TensorFlow

HuggingFace

Gradio

NumPy

MPI

OpenMP

Pthread

CUDA

SQLite

Tools & Softwares

Ci+

Code Composer Studio

mikroC

NI Multisim

Prtoteus

Quartus

Os Linux macOS Windows

Contact

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Education

Sri Lanka Institute of Information Technology

Bachelors of Science in Electrical and Electronic Engineering

CGPA: 3.6

Dean's List: Semester 03, 05, 06

Publications

K. Piyumal, K. Wijayasekara, G. Fernando and N. Mihiranga, "Hungarian Algorithm-Based Method to Efficiently Perform Matching Tasks in Offline Re-Identification," in IEEE BigData, Osaka, 2022. Under Review

K. Piyumal, L. Seneviratne, "Semantic Segmentation with Dilated Neighborhood Attention Transformers (DiNATs)". In Progress

Professional Experience

Zone24x7 Private Limited

Sep 2021 - Present

Feb 2019 - Feb 2023

Trainee Associate Electronics Engineer

Research and development work in Triplet Network, Person Re-Identification, Object Detection, Inter Camera Tracking, and Multi Camera Multi People Tracking (MCMPT)

Projects

Semantic Segmentation using Vision Transformers Jun 2022 - Present Developed an algorithm work on object segmentation using dilated neighborhood attention vision transformers.

Vending Machine Design in FPGA

Feb 2022 - Mar 2022

Developed a DFA for the vending machine and implemented in VHDL

Multi Camera Multi People Tracking

Jan 2022 - Jun 2022

Implemented inter-camera and intra-camera people tracking algorithms to track a person in a multi-camera network

People Re-Identification

Sep 2021 - Jan 2022

Research and development work on people re-identification focused on efficient matching retrieval during offline inferencing.

Digital Tachometer Design

Mar 2021 - Apr 2021

Developed firmware of a digital tachometer with a limited storage capacity

Dirt Detection in Surgical Gloves

Jan 2021 - July 2021

Research and development of an algorithm to detect defects in surgical gloves at the manufacturing stage for Lalan Gloves (Pvt) Ltd.

Grid Following Robot

Jun 2020 - Nov 2020

Developed a motion controlling algorithm in Fuzzy Logic and PID with MSP430

Volunteering

SLIIT Engineering Research and Innovation Club

Oct 2021 - Present

Sep 2021 - Sep 2022

Mentor

Mentoring six junior undergraduates in two groups to complete Al-related projects

NcodeExpert (Pvt) Ltd STEM Research Volunteer Aug 2021 - Aug 2022

Volunteered for drug discovery and rare disease discovery research projects

Honors and Awards

Outstanding Intern of the Year (Nominated)

SLIIT Merit Based Scholarship May 2021 - Aug 2021

SLIIT Merit Based Scholarship Jan 2021 - Apr 2021

SLIIT Merit Based Scholarship Jan 2020 - Apr 2020