M THIRULOK SUNDAR

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EDUCATION

Indian Institute of Technology(ISM) Dhanbad   *Dec 2021 - Present*
Undergraduate   Overall GPA: 8.25/10
Department of Electrical Engineering
Member of CyberLabs - Machine Learning

TECHNICAL STRENGTHS

Computer Languages	Python
Skills & Tools	Machine Learning(Job-level), Deep learning(job-level), Computer Vision (job-level), PyTorch, Tensorflow, OpenCV, AWS, Linux, Git

EXPERIENCE

Indian Institute of Technology Delhi   Oct 2023 - Present
Research Assistant

· Research on novel methods for traffic sign detection under hazardous conditions.
· Working on methods using Attention-Based Convolutional Neural Networks and GANs.

Indian Institute of Technology Dhanbad   Oct 2023 - Present
Research Assistant

· Working on optimizing and improving Few-Shot Learning with Graph Neural Networks.

Mowito   Mar 2023 - July 2023
Robotics Software Internship

· Implemented perceptual hashing technique to remove very similar images in training dataset categorised date-time wise to enhance and improve training of the model.
· Implemented a Dataset class which can load and visualize multiple annotations such as instance, picking and crate annotations.
· Implemented a separate annotation loading class to integrate the Dataset class into the existing code-base.
· Implemented a class to calculate time taken for an order to be completed by the robot and human after receiving it given resource and other constraints.

Maxtap   Feb 2022 - Apr 2022
Computer Vision Internship

· Implemented a Computer Vision model(Caffe model) to detect moving vehicles in a given video
· Implemented a deep learning model to detect the category of dress worn by people in a video using Tensorflow

Global Cert Pvt. Ltd.   Jan 2022 - Feb 2022
Deep learning Internship

· Implemented Perceptron and Convolutional Neural Network models from scratch on given image data for a classification task and Facial Emotion Recognition.

PROJECTS

Implemented a YOLOV3 and YOLOV7 model using Darknet framework to detect traffic lights in a given video in real time.

Implemented an algorithm using traditional computer vision techniques to detect bar-codes in grocery items and predict bounding-boxes of the items in different colours based on whether bar-code is readable, present or not-present.

Implemented basic Machine learning and Deep learning algorithms from scratch without using any libraries in Python.

ACADEMIC ACHIEVEMENTS

Ranked in National Top 0.6% (amongst 1,200,000 candidates) in JEE Mains 2021

Ranked in National Top 3% (amongst 150,000 candidates) in JEE Adv 2021

RELEVANT COURSES

Python For Everybody - University of Michigan

Machine Learning - Stanford University

Machine Learning with Python - University of Michigan

Deep Learning Specialization - DeepLearning.AI

CS231N(Stanford) - Deep Learning for Computer Vision

Reinforcement Learning - DeepMind x UCL

OTHER ACHIEVEMENTS

Secured second prize in the AI of God - Deep learning/ Computer Vision inter-college Kaggle competition held as a part of the annual tech fest of our college IIT(ISM) Dhanbad.

Won second prize in Winter of Code - Machine learning division held by CyberLabs(official tech club of IIT(ISM) Dhanbad).

Ranked 54th in All-India in Amazon ML Challenge 2023 - We implemented FAISS(search algorithm) to predict dimensions of product

Represented IIT(ISM) Dhanbad in the Inter-IIT Tech meet 2022 - We implemented a NLP model to answer questions given a paragraph.