GNYANA TEJA SAMUDRALA

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CARRIER OBJECTIVE

I am an enthusiast in the field of machine learning and artificial intelligence. Looking for a full-time opportunity involving computer vision.

WORK EXPERIENCE

Adagrad Private Limited, India Aug 2020 - Present

Research Scientist

- Worked on developing projects relating to the field of computer vision, involving various object detection and feature extraction models used for various video analytic projects.
- Mainly the use cases were based on Person Detection, Face Recognition techniques.
- These applications were deployed on edge arm based devices like Jetson using DeepStream SDK to provide solution on edge devices with high and optimized performance.
- Using the TensorRT and GPU specific encoding and decoding optimizations to improve the performance of certain objection detection and classifier model in an application by 94.3% on these devices.
- Laid roadmap to the development of the base board for Jetson devices.

EDUCATION

University of Maryland, *August 2018 - May 2020*

M.Eng in Robotics GPA:3.70

College Park, MD, U.S.A.

Manipal Institute of Technology *August 2014 - May 2018*

B.Tech in Mechatronics GPA:3.88

Manipal, KA, India.

TECHNICAL STRENGTHS

Programming languages	Python, C++, C
Technical Software's & Tools	Pytorch, TensorRT, Deep Stream, MATLAB, ROS, Solidworks
Electronics	Nvidia Jetson devices, Arduino, RaspberryPi, 8051

PROJECTS

Panorama Stitching

- Used the SIFT features to find the matching points, with the help of RANSAC robust homographies were computed between two images.
- Implemented the same using deep learning model, where a network was trained on synthetic data of 50,000 training images and 10,000 test images to estimate the homographies.
- Supervised learning has given accuracy of 12 pixels and Unsupervised method improved to 10.95 pixels on the training set, as increase in 9% was observed with Unsupervised model.

Structure from Motion

- An unsupervised learning framework for predicting monocular depth and ego motion from an video.
- We tried to improve the SfMLearner model by changing various parameters of the network and restricting the KITTI data-set size to approximately 12,000 images.
- The evaluations and comparision show the effectiveness of our approach, which improves the absolute relative depth metric by 18%.

COURSES

Statistical Pattern Recognition, Deep Learning Approaches for Computer Vision, Robot Modelling, Control Systems.