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 applications of machine learning and deep learning techniques.

EDUCATION

University of Maryland, *August 2018 - Present*
M.Eng in Robotics GPA:3.66
College Park, MD.

Manipal Institute of Technology *August 2014 - May 2018*
B.Tech in Mechatronics
Manipal, KA, India.

TECHNICAL STRENGTHS

Programming languages	Python, C++, C
Technical Software's & Tools	TensorFlow, MATLAB, ROS, VRep, Solidworks , ANSYS, Latex
Electronics	Arduino, RaspberryPi, 8051
Mechanical	CNC, Lathe, Welding

PROJECTS

Face swap
- The project aim was to implement swapping of faces in a video just like a Snapchat filter.
- Followed the classical method and deep learning method of detecting the face fiducials.
- A better facial detection was done with the Position Map Regression Network in all positions compared to classical detector.

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 video sequence was presented.
- 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%.

Deep Learning models on CIFAR-10 dataset
- ResNet,ResNeXt and DenseNet models were used to classify the data with an highest accuracy of 79%.

WORK EXPERIENCE

Research Centre Imarat, India Jan 2018 - May 2018
Intern

· Studied the manufacturing process of the accelerometer. Implemented a semi automated process into the etching step used in the manufacture of accelerometers. Designed a micron scale wax ejector in a team of two.

COURSES

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