



Md Meraz

Technical Lead @HCL | Computer Vision
Deep Learning | NLP | P.h.D @ IIIT Allahabad



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Educations

- M. TECH + P.H.D**
Information Technology
IIIT Allahabad, [2016-2021]
- B. TECH**
Electronics & Communication
RTU KOTA, [20011-2015]



Certification

- Linux
- Devops



Publications

- Journal- 01
- Conference-04
- Survey-01
- Under Review-03



Awards

- GATE Scholarship
- Minority Scholarship
- GIT Coder
- Gymkhana Senator

Summary

I am currently in HCL Technology as a Technical Lead role @next.ai Lab; formerly, I worked at IIIT Allahabad's Center of Intelligent Robotics Lab for A.I model development on 3D Vision task, additional the Key responsibility of mentoring the B.Tech and M.Tech Project/Thesis.

Experiences



Technical Lead (Next.ai Lab)

HCL Technology

Feb-2022 - Cont.

- Using Lidar and Camera Sensor data, develop a 3D Object Detection fusion model for an advanced driver-assistance system.
- Develop Automatic Speech Recognition and Text to Speech Synthesis using the Nvidia NeMo toolbox.
- Multi user audio separation from single audio using Deep Learning technique DeMuc.
- Toxic language identification based on audio utilising an AI-based technique.



Research Scholar (CIR Lab)

IIIT Allahabad

Jan-2018 to Feb-2022

- In the field of 3D scene understanding, develop 3D state of the art Classification model on ModelNet-40 dataset(Highest Accuracy-93.64).
- Graph Neural Network based 3D Object Part segmentation on ShapeNet dataset.
- Pioneer mobile robots state estimation using LSTM based Sequential network.
- Angle based 3D Lidar Object Detection for Self Driving Car on Kitty benchmark dataset.
- Fast Nearest Neighbors calculation based on Kd-Tree for real-time graph creation in Lidar dataset.
- Deliver presentations and hands-on sessions at workshops, conferences, and Event organisation like Conference .

Professional Skills

- Research Area:** Computer vision, Deep Learning, , 3D Vision, NLP.
- High Performance Computing(HPC):** NVIDIA DGX , SLURM, PBS.
- Programming Languages:** Python, C/C++, bash & CUDA.
- A.I. Toolkits:** Pytorch, Tensorflow & Keras.
- M.L Toolkit:** Numpy, OpenCV, Scikit learn, Matplotlib, Pandas.
- N.L.P Toolkit:** NeMo, SpeechBrain, PyAudio & Pydub.
- Productivity Tools:** VS Code, Vim, Debug(pdb, gdb) ,Annaconda, Colab & Kaggle.
- Other Tools:** MySQL, Rest API, Web Scraping, PyBind & OOPS.
- Dev-Ops Tool:** Git, GitHub, Maven, CMake, Docker, Nvidia Docker, NGC Container, Kubernetes, Linux, SSH, rsync & Google Cloud Product.
- ML-Ops Tool:** OpenVino, Kubeflow.
- Hardware:** Circuit design, Rasperry, Arduino, Nvidia Jetson, Electronic Sensors, Camera,, Kinect, Lidar & GPU card configuration.