SARVAGYA GUPTA

sarvagya.gupta001@umb.edu | Website

RELEVANT EXPERIENCE:

Self-assigned and relative Projects:

Model Compression:
- Worked on a model compression technique using information bottleneck principle.
- Compressed a model by 99% and achieved mean accuracy of 87% on test set.
- Trained using half the training dataset.
- Currently my MS Thesis topic.

Flock: Mapping NYC Subways
- Developed an Android app the New York City subway system. Google Play
- Selected for FbStart Bootstrap Track
- Created product of immense need for NYC commuters (personal research).
- Created the database of almost 2,000 datasets for 500 subway stations for best integration with the app
- Co-developed the navigation algorithm being used for the app.

Green Rain Studios | Deep Learning Engineer *Jan 2020 - Aug 2021*
- Responsible for Deep Learning work at the company
- Created a background estimation and replacement model for graphics design
- Developing 3D models (human meshes, point clouds) for more advanced graphics designing.

Tata Institute of Fundamental Research | Researcher *August 2019 - Mar 2020*
- Worked on Machine Learning techniques for Quantum Computing
- Developed one of kind reinforcement learning agent to make any quantum state reach uniform superposition.
- Took less than 1000 steps to train the model compared to other works with more than 5000 steps.
- Worked on image reconstruction and anomaly detection on imbalanced dataset for solar magnetic radiations.

Robert Bosch Centre for Cyber Physical Systems | Project Assistant *March 2018 - August 2019*
- Worked at Indian Institute of Science, Bangalore on object and collision avoidance algorithms for cars
- Used computer vision and deep learning techniques to achieve these goals
- Ensured the models are optimised for boards like TX2.
- Worked with Prof Chiranjib Bhattacharyya.

EDUCATION:

University of Massachusetts, Boston *Fall 2021*
Masters's of Science, Computer Science and Mathematics (4.0/4.0)

New York University Polytechnic School of Engineering. *May 2015*
Bachelor of Science: Electrical Engineering

Coding Work:
Github, BitBucket

TECHNICAL SKILLS:

Programming Languages:	**C++, Python, MATLAB, R**
Other:	**OpenCV, Tensorflow, Keras, TensorRT, PyTorch**
Database Management:	**MySQL**
Boards:	*NVIDIA TX2, Odroid, Raspberry Pi*

Areas of Interest: Quantum computing, Medical Imaging, properties of eigenvectors, Bayes Theorem, Differential Equations, permutations and combinations. Are Neural Networks enough to achieve AGI?

CERTFICATE:
Coursera Machine Learning course: Certificate