

+1(404)563-2202

470, 16th St NW, Atlanta, Georgia

tgandhi9@gatech.edu

TARUSHREE GANDHI

Georgia Institute of Technology

Master of Science, Computer Science (Aug 2019-Dec 2020)

[Linkedin.com/tarushree-gandhi](https://www.linkedin.com/in/tarushree-gandhi)

<https://tarushree.github.io>

I am a highly self-driven Machine Learning Engineer guided by more than 3 years of valuable work-experience, with an exceptional desire to learn, implement and innovate ideas. I am always on the lookout for interesting problems that help me advance my knowledge and improve my practical skills. I am actively seeking an internship opportunity starting Summer 2020.

Interests

Computer Vision | NLP | Robotics

Work Experience

Research Engineer | The Hi-tech Robotic Systemz Ltd.

Gurgaon, India

Fields: Advanced Driver Assistance Systems | Autonomous Driving Technology

(June 2017 - July 2019)

Image Classification

- Developed a **Real-Time Traffic Light Recognition** system using modified Densenet built on Nvidia TX1 yielding 98.4% credibility.
- Built a Squeeze-net based **Simultaneous Multi-Classification framework** to stratify images on the time of the day and relevance, while achieving a **significant accuracy** of 92.3%.
- Boosted the performance of a failed Object Detector by developing a robust CNN-based **Single-Shot (SSD)** feature classifier to create an effective training dataset.

Image Segmentation

- Implemented an E-Net based **Semantic Segmentation** system to label the road, pedestrians, 2 and 4 wheel automotives using Res-Net features to achieve 65% test accuracy and a speed of 7 fps on Nvidia TX1.
- Helped promote company's success by building an effective **Instance-level** multi-branch Encoder-Decoder network for simultaneous **class and instance-level segmentation** that was showcased to the Media and Investors.

Object Detection

- Designed a refinement **anomaly detection** model for **Lane Departure Warning System**.
- Played a vital role in the development of a **low-cost Pilot System** by detecting persons and vehicles in the **Blind Spot Region** using HOG and SVM.

Data Management and Data Annotation

- Developed a smart image selection framework for image annotation using Mask R-CNN, SSD networks for **Active Learning**.
- Implemented an automated **MongoDB-based inference framework** for data querying and test inference reports generation, presenting accuracy numbers and related graphs.

Software Engineer | Cleartrip Pvt. Ltd | Android Mobile Application Development

Bangalore, India (July 2016 - June 2017)

Built services like Wishlist & Wallet for Purchase, Smart Lock for Password Protection and Convenience Fee for transactions for the Payment's segment of the Application.

UG Thesis Project | Research Intern | Zenatix Solutions Pvt. Ltd | Machine Learning

Gurgaon, India (Dec 2015 - June 2016)

Designed a **Predictive Thermal Model** for HVAC optimization of air-conditioner usage in buildings to conserve energy, while maintaining the comfort level. Built Regressive and Clustering Models post statistical data analysis and visualization.

Key Skills

Language proficiency - Python, R, C, C++, Java | Tools - Jupyter Notebook, Android Studio, Git, MongoDB | OS - Linux, ROS
DL and ML libraries - OpenCV, Scikit-Learn, Dlib, Darknet, Torch7, Pytorch, Caffe, Keras, TensorFlow.
CNNs and ML algorithms - HOG, SVM, Densenet, Squeezenet, Enet, PspNet, Mask R-CNN, Faster R-CNN

Achievements

GHC 2019 Scholarship - Georgia Tech

(Sep 2019)

Received a scholarship to the 2019 Grace Hopper Celebration of Women in Computing by the College of Computing at Georgia Tech.

Building Science for Life - The Hi-tech Robotic Systemz Ltd.

(Mar 2018)

where my Semantic Segmentation model detected the woman who died in the Uber's Auto-driving accident, **1.1 seconds** prior to crash.

National Honour - Innovation

(Dec 2015)

Awarded by IEDC, DST - India for building a robot navigation, face detection and query-processing Airport Assistance System.

Education

Georgia Institute of Technology, Atlanta (MS, Computer Science)

(Aug 2019 - Dec 2020)

Vellore Institute of Technology, India (B.Tech, Computer Science)

9.13 CGPA (2012 - 2016)

Delhi Public School, India (Class XII / Senior Secondary)

93 % (2012)

Coursework

Machine Learning, Artificial Intelligence, Computer Vision, Data Mining, NLP, Deep Learning, Probability and Statistics, Data Structures and Algorithms, Software Engineering, Linear Algebra, Discrete Mathematics, Object Oriented Programming and Paradigm, Operating Systems, Web Technology.