

ANUSHA SRIKANTHAN

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EDUCATION

Georgia Institute of Technology | Atlanta, GA *August 2019 – May 2021 (Expected)*
Master of Science (Thesis) in Electrical and Computer Engineering GPA 3.86/4
National Institute of Technology | Tiruchirappalli, TN, India *July 2015 – May 2019*
B. Tech (Honors) in Electronics and Communication Engineering, Minor in Computer Science GPA 9.15/10

PUBLICATIONS AND ACADEMIC ACHIEVEMENTS

- Results published to **Autonomous Agents and Multi-Agent Systems (AAMAS) 2021** under review
- Sponsored by research grant from Army Research Lab (2020 – 2021)
- Ranked overall 7/105 students in B. Tech at NIT Trichy (2015 – 2019)
- Received Honors Degree for completing 3 additional courses specializing in DSP (2018 – 2019)
- Received Letter of Appreciation from Minister of HRD, India for exceptional performance in Class XII Examination (2015)

RESEARCH EXPERIENCE

Learning Task Requirements in Heterogeneous Multi-Agent Systems (Ongoing) *Jan 2020 – May 2021*
Graduate Research Assistant, RAIL Lab, Dr. Harish Ravichandar

- Established the research problem for using expert Demonstrations to learn different strategies for complex tasks and perform multi-robot task assignment (ST-MR-IA) with heterogeneous agents
- Formulated and simulated a Discrete Optimization algorithm using CPLEX and Python to tackle multi-modality in task requirements, verified by designing battle scenarios on the latest release of StarCraft II Editor

Performance Optimization of UNet [Report] *Aug 2019 – Jan 2020*
Research Member, NerDS Lab, Dr. Eva Dyer

- Developed novel evaluation metrics to test the performance of UNet architecture, a Deep CNN used for segmentation and 3D reconstruction of MRI images from Striatum and Cortex using PyTorch, Scikit-learn and Python
- Improved the blood vessel prediction accuracy in Striatum from 0.69 to 0.95 and reduced noise to produce cleaner outputs for 3D Visualization after reconstruction using ITK-SNAP

INTERNSHIP EXPERIENCE

NVIDIA Graphics Pvt Ltd | Bengaluru, India [Report] *May – Jul 2018*
Autonomous Vehicles Engineering Intern, Tegra SOC Design

- Designed and implemented a Safety Duplication Plugin for multiple error detection using concepts of redundancy and clock domains and integrated it on Perforce using Perl scripts with Viva embedded code programmed on a UNIX based OS
- Formalized hierarchical changes in the internal architecture of the IP module for making it plugin compatible which increases the safety compliance at the hardware level to prevent failure when the chip is used in self-driving cars

SOFTWARE ENGINEERING PROJECTS

Visual Object Detection System, Brain Corp [Report] [Code] *Feb 2020*

Ideated and implemented an object detection system to locate a phone in each image of a dataset using Template Matching

Transfer Learning for Damage Detection in Buildings using VGG16 [Paper] *Aug – Dec 2019*

Engineered a solution using state-of-the-art CNN to study transfer learning by using VGG16 architecture pre-trained on ImageNet dataset to classify levels of damage in our dataset containing damaged buildings

Multi-sensor Fusion for the Detection of Exit Lanes in Freeway [Report] *Nov 2018 – May 2019*

Undergraduate thesis on traffic sign and lane detection from videos using OpenCV and Unity

Coding Projects using MATLAB, C, C++, Python and OpenCV

Visual Aid Kit using OpenCV [[GitHub](#)], Algorithm optimization in Wireless Networks, and Snake Game using OOP concepts

POSITIONS AND RESPONSIBILITIES

- As the President of NIT Trichy's Dance Troupe, I led 50 students across two troupes (Indian Classical and Western) in various inter-collegiate dance competitions across the country
- Volunteer at Illuminate (NGO) – Handled Math and English classes for underprivileged kids from Grade 6 and 7