SRIDHAR THIAGARAJAN

www.linkedin.com/in/sridhartee — https://sritee.github.io/
www.github.com/sritee ◇ thiagars@oregonstate.edu,+1-5419083285

SUMMARY

Motivated robotics graduate student with over three years of experience in machine learning, reinforcement learning and controls. I am currently looking for a challenging Summer 2019 internship.

EDUCATION

M.S in Robotics, Oregon State University *Sept 2018-20*
Autonomous Agents and Multiagent Systems, Large Scale Optimization, Intro. to Robotics

Bachelor of Engineering, Anna University CGPA- (8.31/10) *May 2018*

TECHNICAL SKILLS

- Programming: Python, C++, MATLAB
- Solvers/Libraries/Software: CVX, TensorFlow, ROS, OpenCV, Git Gazebo
- Self Study: Bishop's Pattern Recognition and Machine Learning, Convex Optimization by Stephen Boyd, Richard Sutton's Introduction to RL, Stephen Abbott's Understanding Real Analysis

EXPERIENCE

IIIT Delhi May 2017 - Oct 2017
Machine Learning Intern *[Poster]*

· Designed and evaluated RL based adaptive traffic light controllers, and compared them to non-adaptive baseline controllers in terms of average wait time. It was found to be an improvement by over 21 percent.
· Implemented and tested state-of-the-art one shot imitation learning algorithms in Tensorflow on a simulated Gazebo environment, studying the effect of an egocentric view video on learning capability.

Swaayatt Robots Dec 2016 - Feb 2017
RL for Autonomous Driving

· Designed and tested off-policy RL methods for steering control of an autonomous vehicle. Goal was to perceive and steer smoothly along a trajectory by formulating and approximately solving an MDP.
· Integrated information from 3 sensors mounted on the vehicle which were publishing information using ROS topics. Designed the actuation mechanisms (brakes, steering, accelerator) for converting the vehicle to drive-by-wire.

ACADEMIC PROJECTS (SELECTED)

- Autonomous Overtaking using Reinforcement Learning [Report]
  - Implemented several research papers in options framework, a temporal abstractions framework and designed a PyGame simulator to test a proposed framework for autonomous driving.
- Convex Optimization Solver [Code]
  - Built a interior point method based convex optimization solver in MATLAB. General solver which assumes differentiability everywhere, and uses second order methods for optimization.
- Autonomous Beach Cleaning Robot [Video]
  - Led team of three which developed an autonomous beach cleaning robot. My role was in team organization, ML for litter detection, and prototype design.