# 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'm passionate about working on applied robotics research, and I'm currently working on improving Ebola camps with robots.

## EDUCATION

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

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

## TECHNICAL SKILLS

- Programming: Python, C++ (familiar), MATLAB
- Solvers/Libraries/Software: TensorFlow, ROS, Gazebo, CVX, OpenCV, Git, Pandas
- 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

**Personal Robotics Lab, Oregon State University** Oct 2018-Ongoing
*Graduate Researcher*

· Developing action planners for finite horizon probabilistic setting by formulating it as an orienteering problem. Application domain is an Ebola camp in Africa organized by *Doctors without Borders* (MSF).

**IIIT Delhi, India** May 2017 - Oct 2017
*Machine Learning and Robotics Intern* *[Poster]*

· Designed and evaluated Reinforcement Learning based adaptive traffic light controllers which were found to be an improvement of over 21 percent when compared to a non-intelligent controller.
· Implemented one shot imitation learning algorithms in Tensorflow for egocentric view based control.

**Swaayatt Robots, India** Dec 2016 - Feb 2017
*Reinforcement Learning and Robotics Intern*

· Designed and tested off-policy, model-free reinforcement learning methods for steering control of an autonomous vehicle. Trajectories to be followed were detected with a CNN trained to 97% test error.
· Designed several mechanisms for vehicle's drive by wire conversion, and used ROS to integrate all sensor information for the reinforcement learning workflow.

## ACADEMIC PROJECTS (SELECTED)

- Autonomous Driving 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.
- 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 using CNNs, and prototype design.