## VEERA RAGAV CHIKKANACHETTIYAR VEERAMANI

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Available May – December 2020

#### **EDUCATION**

#### Northeastern University, Boston, MA

Expected 2021 GPA: 3.26/4

Candidate for Master of Science in Electrical and Computer Engineering

Concentration in Computer Vision, Machine Learning and Algorithms

Coursework: Mobile Robotics, Applied Probability & Stochastic Processes, Robotics Sensing & Navigation, Introduction to Machine Learning and Pattern Recognition

PSG College of Technology, Anna University, Tamil Nadu, India

May 2018

Bachelor of Engineering, Robotics and Automation Engineering

GPA: 8.07/10

Coursework: Vision Systems and Image Processing, Field and Service Robotics

**TECHNICAL SKILLS** 

**Programming Languages:** C, C++, Python, Java.

Libraries & Tools: MATLAB, PCL, OpenCV, ROS, Bullet Physics Library, OGRE Graphics Library, Blender,

SolidWorks, LabView, CMake.

Operating systems: Ubuntu (Linux), Windows.

**IDE:** Eclipse, Atom, Qt Creator, Visual Studio Code.

**Version Control:** Git.

## **INTERNSHIP EXPERIENCE**

# Katomaran Technology and Business Solution, Coimbatore, India

January 2019 to May 2019

## **ROS Developer Intern**

- Created ROS package for a skid-steer drive mobile robot.
- Implemented custom path planners for security patrol application as ROS navigation stack plugins.
- Developed auto-docking software for the skid-steer drive mobile robot.

## Alog Tech Pvt. Ltd., Hyderabad, India

June 2018 to September 2018

#### **Robotics Engineer Intern**

- Implemented SLAM, AMCL and Path Planning in autonomous cart prototype.
- Decreased failure of localization and path planning by implementing algorithms which provide redundancy.
- Algorithms: Dynamic Window Approach, AMCL, SLAM, Visual-SLAM, A\* Search, Dijkstra Search

## Cylab, Carnegie Mellon University, Pittsburgh, PA

January 2018 to May 2018

#### **Student Intern**

- Developed virtual sensor modules using Ogre3D for self-driving car simulator.
- Developed an architecture to add different types of vehicles, pedestrians and traffic lights to the simulation.
- Developed an interactive tool to read, write and edit XML files which are used as configuration files, to create scenarios in the simulation world.
- Algorithms: Breadth-First Search, A\* Search, State Machine

## **PROJECTS**

#### **Title: Lounge Space Spotter Using Turtlebot 2**

Sep 2019 - Dec 2019

## **Course: EECE5550 - Mobile Robotics**

- Developed a ROS package to make Turtlebot to patrol the lounge area to count the vacant spots that are updated in the map.
- Algorithms: AMCL, SLAM, Dijkstra Search, Dynamic Window Approach.

#### **OPEN-SOURCE CONTRIBUTIONS**

- Developed a ROS package for Rhino DC Servo Motor. [LINK]
- Fixed some critical bugs in ROS Navigation Stack. [LINK]