Sahit Chintalapudi

chsahit.github.io schintalapudi@gatech.edu 908.887.4698 325414 Georgia Tech Station, Atlanta GA
Looking for an internship or research experience developing intelligent robots.

EDUCATION

GEORGIA INSTITUTE OF TECHNOLOGY
BS in Computer Science
Expected May 2020 | Atlanta, GA
Concentrations in Theory and Intelligence
GPA: 3.95 / 4.0

SKILLS

Programming Languages:
Python, C++, Java
Tools:
Linux, ROS (Robot Operating System), SQLite, Vim, LaTeX

COURSEWORK

COMPLETED
Introduction to Artificial Intelligence
Honors Probability and Statistics
Honors Design and Analysis of Algorithms
Second Course in Linear Algebra

FALL 2018
Machine Learning
Stochastic Processes
Computer Vision

AWARDS

Google Games 2018-3rd Place
Swamphacks 2017-Best use of ClarifAI
Swamphacks 2017-HackHarassment Award
IBM Master the Mainframe 2016 - First 80 finishers of part two
Hack Rutgers 2015 - Best use of SendGrid

LINKS

GitHub: **github.com/chsahit**
LinkedIn:
linkedin.com/in/sahit-chintalapudi

RESEARCH

ROBOT LEARNING LAB | Researcher, Webmaster
April 2017 – Present

- Applying Gaussian Processes to perform motion planning online in dynamic environments.
- Used Matlab scripts to invoke the Gaussian Process Regression and wrote C++ code to quickly perform A* search and generate spanning trees for planning.
- Building "AutoRally", an open source platform to be used as a testbed for perception and controls research that is integrated with ROS.

SEARCH BASED PLANNING LAB | RI Summer Scholar
June 2018 - August 2018 | Pittsburgh PA

- Designing a planner which takes in homotopy constraints from human users and generates valid trajectories with bounds on suboptimality using ROS and C++.
- Modeled a robot within the ROS Moveit package using URDF and used IKFast — a python-based tool from OpenRAVE — to generate its' inverse kinematics.

HUMAN-AUTOMATION SYSTEMS LAB | Researcher
January 2017 – May 2017

- Choreographed a telepresence robot to be more expressive by modifying the motion profiles that controlled the robot with Java

PROJECTS

SEDANI - AUTONOMOUS RC CAR | Software Lead

- Prototyped different deep network architectures in Keras for end to end learning of steering autonomous vehicles from images of the road.
- Designed new worlds in the Gazebo simulator to test the robustness of our deep end-to-end model

BUZZMOBILE | Project Lead
January 2017 – April 2018

- Lead development on an autonomous parade float modeled after the 1930 Ford Model A Sport coupe
- Integrated Gazebo, a robot simulator, with ROS so we could test in simulation using nodes written in C++
- Added Arduino firmware to engage and disengage brakes as well as read incoming commands over the serial line

MACARONI - AUTONOMOUS RC CAR | Software Lead
September 2016 – July 2017

- Implemented an SVM that detects the road in an image with OpenCV and Python
- Ported the vision software from ROS nodes to nodelets in C++ to drop computation time
- Tuned the HSV color thresholds for feature detection in the International Autonomous Robot Racing Competition 2017 where the robot won third place
- Developed the PID controller which acted as interface between the hardware and the high level AI on an Arduino.