

Sahit Chintalapudi

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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: 3.93 / 4.0

SKILLS

Programming Languages:

Python, C++, Java

Tools:

Linux, ROS (Robot Operating System),

Vim, Protobuf, MATLAB, \LaTeX

COURSEWORK

Machine Learning

Computer Vision

Second Course in Linear Algebra

Honors Design and Analysis of Algorithms

Honors Probability and Statistics

Introduction to Artificial Intelligence

Robotics and Perception

AWARDS

Google Tech Challenge 2019 - 1st Place

Sparkfun Autonomous Vehicle

Competition 2018 -

Best Collegiate Speed Demons Team

Google Games 2018-3rd Place

Sparkfun Autonomous Vehicle

Competition 2017 -

Autonomous Car Wars Winner

International Autonomous Robot Racing

Competition 2017 - 3rd Place

Swamphacks 2017-Best use of ClarifAI

Swamphacks

2017-HackHarassment Award

LINKS

GitHub: github.com/chsahit

LinkedIn:

linkedin.com/in/sahit-chintalapudi

RESEARCH

ROBOT LEARNING LAB | UNDERGRADUATE RESEARCHER

April 2017 – Present

- K. Kolar, **S. Chintalapudi**, M. Mukadam, B. Boots, Online Motion Planning Over Multiple Homotopy Classes with Gaussian Process Inference, (Under Review) IROS. 2019
- Developed PLOSH - Planning Online by Switching Homotopies. Used C++, MATLAB, and the GTSAM toolbox to model the problem as a factor graph that adapted in real time to environment changes.
- Testing the performance of various Model Predictive Control algorithms and implementing ROS nodes to allow them to run on the AutoRally Platform

SEARCH BASED PLANNING LAB | RI SUMMER SCHOLAR

June 2018 - August 2018 | Carnegie Mellon University, PA

- V. Ranganeni, **S. Chintalapudi**, O. Salzman, M. Likhachev, Effective Footstep Planning Using Homotopy-Class Guidance, (Under Review) Artificial Intelligence (AIJ). 2019.
- Worked on footstep planning for humanoid robots using homotopy class guidance; our approach plans orders of magnitude faster than the baseline

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

November 2017 - October 2018

- 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

BIGOLI - AUTONOMOUS POWER RACING VEHICLE August 2017 – October 2018

- Used Hough Circles to identify the start signal for the race
- Modeled the robot in URDF (Unified Robot Description Format) to enable coordinate transformations with ROS's tf library.

BUZZMOBILE - AUTONOMOUS PARADE FLOAT | PROJECT LEAD

January 2017 – April 2018

- 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

- Trained an SVM that detects the road in an image with OpenCV and Python
- Optimized C++ vision code to run on limited hardware
- Developed the PID controller which acted as interface between the hardware and the high level AI on an Arduino.