Rohan Banerjee

Address: 123 Elm St, Apt. 1, Somerville, MA 02144
Phone: (703)-743-4178 E-Mail: rohanb@mit.edu

EDUCATION

Massachusetts Institute of Technology (MIT) **Cambridge, MA**
M.Eng. in Electrical Engineering and Computer Science, GPA: 4.5/5.0 June 2019
S.B. in Electrical Engineering and Computer Science, GPA: 4.9/5.0 June 2018
Relevant Coursework: Statistical Learning Theory and Applications, Robotics: Science and Systems, Bayesian Modeling and Inference, Machine Learning, Inference and Information, Design and Analysis of Algorithms, Computational Cognitive Science, Discrete-Time Signal Processing, Elements of Software Construction, Computation Structures

EXPERIENCE

Massachusetts Institute of Technology **Cambridge, MA**
Research Engineer June 2019 – April 2020 (expected)
- Conducting research as a member of the DRL (Distributed Robotics Laboratory) group at CSAIL (Computer Science and Artificial Intelligence Laboratory)
- Refining autonomous driving simulation platform based on CARLA open-source driving simulator
- Validating research algorithms in simulation for vehicle navigation, dynamic obstacle avoidance, and end-to-end learning
- Supporting research in language understanding and human-robot interaction involving the Toyota Human Support Robot platform

Massachusetts Institute of Technology **Cambridge, MA**
M.Eng. Researcher March 2018 – June 2019
- Conducted research as a member of the DRL group at CSAIL
- Developed autonomous driving simulation platform based on CARLA open-source driving simulator
- Investigated learning algorithms for LIDAR-based rural road detection

Autoliv (now Veoneer) **Lowell, MA**
Intern, Advanced Sensing Group June – August 2017
- Developed mapping algorithm for Lidar data (Velodyne VLP-64) using point cloud registration to maintain coherent point cloud history and advance lane/object tracking algorithms
- Investigated mapping/registration techniques with lower-resolution (Velodyne VLP-32) Lidar data to improve point cloud data resolution
- Investigated ego-motion estimation techniques with VLP-64 data to support vehicle localization

Massachusetts Institute of Technology **Cambridge, MA**
SuperUROP Advanced Undergraduate Research Program September 2016 – May 2017
- Conducted research as member of the SLS (Spoken Language Systems) group at CSAIL (Computer Science and Artificial Intelligence Laboratory)
- Contributed to the development of a conversational robotic system that can acknowledge speaking subjects
- Converted offline Voice Activity Detector module into real-time streaming module
- Researched techniques for integrating visual face detection and audio source localization

PROJECTS

MIT Unmanned Aerial Vehicle Team **Cambridge, MA**
Student Participant September 2014 – September 2017
- Developed refined 2D simulator of competition arena and agent dynamics for the International Aerial Robotics Competition as simulation team lead
- Managed development of computer vision gridline and circle detection Python programs as computer vision team lead
- Co-developed Python simulator of competition arena and contributed to UAV path planning algorithms as member of artificial intelligence team

SKILLS

Programming languages: Python, C++, Java, C, MATLAB, C#, Mathematica
Other software: Microsoft SQL Server, Microsoft Excel (VBA)