Rohan Banerjee

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EDUCATION

Massachusetts Institute of Technology (MIT)   **Cambridge, MA**
Candidate for M.Eng. in Electrical Engineering and Computer Science, GPA: 5.0/5.0   February 2019
S.B. in Electrical Engineering and Computer Science, GPA: 4.9/5.0   June 2018
Relevant Coursework: 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, Signals, Systems, and Inference, Computation Structures

EXPERIENCE

Massachusetts Institute of Technology   **Cambridge, MA**
M.Eng. Researcher   March 2018 – present
- Conducting research as a member of the DRL (Distributed Robotics Laboratory) group at CSAIL (Computer Science and Artificial Intelligence Laboratory)
- Developing simulator of rural environment based on CARLA open-source driving simulator
- Developing LIDAR-based learning algorithms for detection of roads with varied terrains

Autoliv   **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

Northrop Grumman   **San Diego, CA**
Intern, Systems Integration, Test & Evaluation   June – August 2016
- Supported Systems Integration, Test & Evaluation for the Triton UAV (Unmanned Aerial Vehicle) program
- Developed Python test automation script for Triton test-bench landing test
- Co-developed SQL database for automated processing of Triton System Test Requests
- Improved upon Excel database for tracking flight requirements and test points
- Researched test automation methods for future modular hot-bench

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)