

SIDDHARTH MYSORE STHANESHWAR

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EDUCATION	Boston University – PhD Computer Science [Aug '17 – present]
	University of Pennsylvania – MSE Robotics [Aug '14 – Dec '16]
	The University of Nottingham – MEng Mechatronic Engineering [Sep '10 – Aug '14] <i>Graduated in the First Class with Honors</i> High Achievers Scholarship [2010 – 2014]
RESEARCH EXPERIENCE	Simulation-to-Reality Domain Adaptation in Robotics [Jul '17 – present] Research Advisor: Prof. Kate Saenko; Boston University Investigating techniques to bridge the reality gap when applying control policies learned in simulation to real robots. Developed automated bandit-based learning scheme for developing Reinforcement Learning control policies that are robust to perturbations in actor environments (<i>paper submission currently under review for ICLR 2019</i>).
	Reinforcement Learning Aided Design [Mar '18 – present] In Collaboration With: Prof. Emily Whiting; Boston University Developing a Reinforcement Learning based pipeline to automatically adjust designs of composites to satisfy specific physical properties (<i>further details pending publication</i>).
	Autonomous Flight Guided by Event-Based Camera [Jul '16 – Apr '17] Supervising Professor: Prof. Kostas Daniilidis; University of Pennsylvania, GRASP Lab Developed vision-based quadrotor flight control with using event-based (iniVation DVS) cameras, as part of a group effort. Designed and built custom quadrotors to serve as testing platforms. <i>Specific responsibilities:</i> State estimation and controller design; Hardware design, construction and management.
	Product ID and Retrieval from Large Catalogues [Jun '16 – Nov '16] Supervising Professor: Prof. Kostas Daniilidis; University of Pennsylvania, GRASP Lab Developed logVLAD - a framework for efficient multi-class product labeling and localization in natural images of shelves in stores, using logarithmically scaled VLAD image encodings, with high precision, better response to feature burstiness, and good energy distribution (<i>work contributed to Master's Thesis</i>).
	Low Cost Manipulation (LoCoMa) [Mar '16 – May '17] Supervising Professor: Prof. Mark Yim; University of Pennsylvania, GRASP Lab – Modular robotics Lab (ModLab) Helped design a novel, low cost, 0-DoF end-effector and manipulation scheme (<i>specifics pending publication</i>).
	Camera Localization [May '15 – Aug '15] Supervising Professor: Prof. Jianbo Shi; University of Pennsylvania, GRASP Lab Implemented real-time image-based camera localization in known 3D spaces using feature matching, visual odometry and SfM. Investigated application of deep-learning in characterizing the camera motion between sequential images (with Dr. Hyun Soo Park). Developed method and software to interface with existing Vicon hardware infrastructure to provide real-time pose tracking of multiple objects.
	Dean's Undergraduate Research Program [June '13 – Aug '13] <i>Participant in a selective research and development initiative</i> Supervising Professor: Prof. Belle Ooi; The University of Nottingham Developed prototype electronics and Graphical User Interface (GUI) for the control of high-performance micro-valves. Researched and Experimented with potential solutions to low-cost printable circuits and antennae (using standard office printers)
PUBLICATIONS	Mysore, S., Platt, R., Saenko, K.; <i>Exploiting Environmental Variation to Improve Policy Robustness in Reinforcement Learning</i> (preprint - submission currently under review for ICLR 2019)
TECHNICAL REPORTS	University of Pennsylvania Master's Thesis - logVLAD: A Novel Pipeline for Image Retrieval (see notes on <i>Product ID</i> above for details on research)
	The University of Nottingham 4th-Year Group Design Project – Automated Search and Rescue Robot with 3D Environment Mapping Supervising Professor: Prof. Kevin Lee <i>Specific area of focus:</i> Object Detection and Recognition for robot guidance. Utilized SIFT-based marker recognition to recognize target objects and estimate the distance to the object 3rd-Year Undergraduate Thesis – Camera-invariant Monocular Imaging Model for Distance Measurement Supervising Professor: Prof. Haider Abbas Almurib Utilized shape and color context for recognizing and estimating distances to known objects from monocular images.
TECHNICAL SKILLS	Programming: C++, C, Python, Java, C#, Unity (game engine), TensorFlow, Caffe, OpenCV, MATLAB, ROS, OpenGL Computer Aided Design (CAD): PTC ProEngineer and Creo SolidWorks, AutoCAD Electronics Design: Circuit Design, PCB design and population Machining & Fabrication: (Trained in) Laser Cutting, 3D Printing, Turning, Milling, Drilling, Tapping, Threading, Welding