

EDUCATION

PhD, Mechanical Engineering, Boston University	2017
Visiting Student, Stanford University	2016
MS, Mechanical Engineering, Boston University	2016
BS, Engineering, Harvey Mudd College	2010
Study Abroad, University of Western Australia	2009

HONORS & AWARDS

- Best Paper Finalist, International Conference on Robotics and Automation (ICRA) 2016
- Clare Boothe Luce Fellowship 2012 – 2014
- Graduated with Distinction, Harvey Mudd College 2010
- Dean's List, Harvey Mudd College 2007 – 2010
- Valedictorian, Steamboat Springs High School 2006

RESEARCH EXPERIENCE

[Postdoctoral Associate, CSAIL, MIT](#) Feb 2017 – Present

Supervisor: Prof. Daniela Rus, Prof. Sertac Karaman

- Working on the Parallel Autonomy project within the Toyota-CSAIL Joint Research Center
- Design control algorithms for autonomous vehicles interacting with human drivers, focus on modeling cooperation
- Hardware implementations on autonomous wheelchair and 1/10th scale race cars

[Research Assistant, Multi-Robot Systems Lab, Boston University & Stanford](#) 2012 – 2017

Advisor: Prof. Mac Schwager

- Thesis: Analysis of multi-agent systems under varying degrees of trust, cooperation, and competition
- Design control algorithms for nonlinear, distributed robots, implementations on quadrotors and ground robots

[Flight Analysis of a Turning Pigeon, Harvey Mudd College](#) 2008 – 2011

- Rigorous kinematic analysis of pigeon's body movements through 90° turn
- Analysis demonstrated pigeons generate upstroke lift and turn similar to helicopters during flight

[University of Iceland Global Clinic, Harvey Mudd College](#) 2009 – 2010

- Designed a small-scale system to generate electricity via "backyard waste heat reclamation"
- Worked with 3M to test Novec fluid for our waste heat reclamation system

[Nike Clinic, Harvey Mudd College](#) 2008

- Designed shoes that are manufactured as independent parts and assembled at the retail level
- Focus on consumer customization, small-scale manufacturing processes and design feasibility

WORK EXPERIENCE

[Cobham Graduate Development Program, Cobham, plc](#) 2010 – 2012

- Design Engineer and Program Manager at Carleton Technologies, Orchard Park, NY
- Design and Operations Engineer and Project Manager at DTC Communications, Nashua, NH

[Software QA Engineer Intern, Laserfiche](#) 2008

- Wrote test protocols and training seminars for QA engineers and help manuals for general users
- Tested the user interface of Laserfiche product suite to improve usability.

SKILLS & CERTIFICATIONS

- MATLAB, Python, ROS, C++
- Solidworks, LaTeX, Microsoft Office, Adobe CC
- Metal/wood machine shop experience
- EIT Certified (April 2010)

MISCELLANEOUS

- Undergraduate Research (UROP) Supervisor, Massachusetts Institute of Technology 2017 – Present
- Alumni Interviewer for Admissions, Harvey Mudd College 2012 – Present
- BU RISE Program Mentor, Boston University 2014
- FIRST Lego League Mentor, Lincoln Laboratory 2012
- Avid skier, SCUBA diver (60+ dives), and cyclist ∞