

**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**

Research Scientist, CSAIL, MIT	Dec 2018 - Present
Postdoctoral Associate, CSAIL, MIT	Feb 2017 – Dec 2018

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 and cooperating with human drivers
- Hardware implementations on autonomous wheelchair and 1/10<sup>th</sup> scale race cars
- Further research details and full list of publications available on website

Research Assistant, Multi-Robot Systems Lab, Boston University & Stanford University	2012 – 2017
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Advisor: Prof. Mac Schwager

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

Flight Analysis of a Turning Pigeon, Harvey Mudd College	2008 – 2011
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- 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
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- 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
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- 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
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- 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
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- 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, MENTORING, and FUN FACTS**

• Skilled in: Matlab, Python, ROS, C++, Solidworks, AutoCAD, LaTeX, Office, Adobe CC	
• Undergraduate Research (URP) 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
• Engineer-in-training (EIT) certified	2010
• Avid skier, SCUBA diver (80+ dives), and cyclist	∞