

EDUCATION

University of Pennsylvania, GRASP Lab*M.S. in Robotics, Advisors: Vijay Kumar & Mark Yim. GPA: 3.8/4.0*

Philadelphia, PA

2018 – 2020

Massachusetts Institute of Technology*B.S. in Mechanical Engineering. GPA: 4.6/5.0*

Cambridge, MA

2013 – 2017

EMPLOYMENT

University of Pennsylvania - Graduate Researcher*Researched control strategies on UAVs and swarms. Designed and verified a robust, perception-based controller for a UAV system. Wrote simulations for a 1cm, single-actuator UAV. Designed learned decentralized controllers for a swarm of robots doing sensor coverage.*

Philadelphia, PA

2018-2021

DeepMind - Research Scientist Intern*Research in improving deep reinforcement learning (RL) policies on robots for reduced actuator wear-and-tear and safer interaction using open-source GCP infrastructure.*

London, UK (Remote)

2021

Kitty Hawk Corp - Controls Engineer*Led implementation of autonomous flight controls and navigation on full-size VTOL electric aircraft. Developed infrastructure for Monte Carlo simulations and flight data analysis.*

Palo Alto, CA

2017 – 2018

Kitty Hawk Corp - Mechanical Engineer Intern*Prototyped ballistic recovery system with ultra-light parachutes and off the shelf rockets.*

Palo Alto, CA

Summer 2016

Voxel8 Inc. - Mechanical Engineering Intern*Designed 3D printed hearing aid. Improved 3D printer firmware and slicing.*

Cambridge, MA

Summer 2015

MIT - Undergraduate Researcher*Worked on 2D linear actuator array electromechanicals for VR-based tactile object simulation. Designed modular cardboard gantry for manufacturing with only rapid prototyping tools.*

Cambridge, MA

2014 – 2017

SELECTED PUBLICATIONS & PATENTS

Siddharth Mayya, **Rebecca Li**, Walker Gosrich, James Paulos, Vijay Kumar and Alejandro Ribeiro, “Graph Neural Networks for Swarm Coverage Control,” (In Preparation). 2021.

Laura Jarin-Lipschitz*, **Rebecca Li***, Ty Nguyen, Vijay Kumar and Nikolai Matni, “Robust, Perception Based Control with Quadrotors,” *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*. 2020.

Dinesh Thakur, Yuezhan Tao, **Rebecca Li**, Alex Zhou, Vijay Kumar and Aleksandr Kushleyev, “Swarm of Inexpensive Heterogeneous Micro Aerial Vehicles,” *International Symposium on Experimental Robotics (ISER)*. 2020.

Damon Vander Lind and **Rebecca Li**, “Attached rocket parachute deployment system.” *U.S. Patent 10,507,929*, 2019.

SKILLS

Programming Languages: Python (TensorFlow, PyTorch), MATLAB, Haskell, C++, LaTeX.

Software: ROS, Solidworks, Autodesk Inventor, CI (GitHub, Jenkins), Linux, Adobe Photoshop/Lightroom.

ACTIVITIES & AWARDS

- Leadership
 - President of Mechanical Engineering Graduate Association (MEGA)
 - President MIT Electronic Research Society (Makerspace)
 - Founder of MIT Combat Robotics Club, Captain of BattleBots team for *The Dentist*
- Awards:
 - Wharton Startup Challenge Innovation Award (Entrepreneurship competition - \$25k)
 - Rothberg Catalyzer 1st Place (Medical device hackathon - \$10k)
 - Y-Prize Finalist (Entrepreneurship competition - \$1.5k)
- Teaching Assistant: Advanced Robotics (Graduate), Electronics for Mechanical Systems (Undergraduate), Introduction to Robotics (Undergraduate).
- Mentoring: Make Learning Labs, MIT Educational Studies Program, Polygence