

## Industry Experience

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### Mechanical Engineer, Rotational

*Collins Aerospace | Mission Systems*

Jan 2021 - Jun 2021

Richardson, TX

- Supporting modernization efforts of E-6B aircraft by analyzing and testing trailing wire antenna reels

### Systems and Software Engineer, Rotational

*Collins Aerospace | Avionics*

Jun 2020 - Dec 2020

Richardson, TX

- Developed the next generation of avionics for US Army Future Vertical Lift platforms
- Automated communications software testing via Python scripting and streamlined testing on simulated hardware
- Utilized MBSE tools to integrate traditional text-based requirements with a SysML logical architecture

### Mechanical Engineer Intern

*SharkNinja | Shark Advanced Development*

May 2019 - Aug 2019

Needham, MA

- Digitally modeled and fabricated components for testing in prototype cordless vacuum cleaner nozzles
- Designed a mechanical meter and wrote a complementary Python computer vision application to measure a vacuum cleaner nozzle's bristle-floor engagement with 0.1 mm precision and verified precision with a gage R&R study

### Engineering Intern

*Superpedestrian | Mechanical Engineering*

Jun 2018 - Aug 2018

Cambridge, MA

- Developed and verified a solid mechanical model for predicting spoke tension based on the sound from plucking a spoke
- Prototyped electromechanical lock solutions for Superpedestrian's share bike platforms

## Education

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### Bachelor of Science in Mechanical Engineering

*Harvard University*

Aug 2016 - May 2020

Cambridge, MA

- Magna Cum Laude with Highest Honors in Field
- Minor in Computer Science

## On-Campus Experience

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### President and Frame Team Lead

*Harvard College Human Powered Vehicle Team*

Sep 2017 - May 2020

Cambridge, MA

- Leveraged SolidWorks CAD and FEA to design, fabricate, and test rollover-safe steel bicycle and tricycle frames
- Led and instructed a dozen students across four sub-teams to 35th place in 2019 and 21st place in 2020

### Teaching Fellow, Introduction to Solid Mechanics

*Harvard School of Engineering and Applied Sciences | Professor Katia Bertoldi*

Jan 2019 - May 2019

Cambridge, MA

- Taught problem-solving sessions, held office hours, wrote exam problems, and graded assignments
- Achieved a mean overall score of 4.2/5 from 30 students through anonymous course evaluations

### Research Assistant

*NYU Department of Psychology | Pelli Lab*

May 2017 - Sep 2017

New York, NY

- Programmed a simulation of retina cell responses in MATLAB to model object recognition processes
- Leveraged SLA 3D printing and Fusion 360 to print sub-millimeter-resolution braille charts for tactile acuity testing

## Skills

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**Hardware:** Manual Machining (lathe, vertical mill), MIG/TIG Welding

**CAD/CAM:** SolidWorks (CSWA Certified), Fusion 360, CNC Machining, Creo, COMSOL, ABAQUS

**Software:** Python, MATLAB, C/C++, DOORS, Cameo, JavaScript, SQL, Microsoft Office, Adobe CC

**Spoken Language:** English (native), Spanish (proficient)