

AVA CHEN

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EDUCATION

| | |
|---|---|
| Columbia University <i>Ph.D in Mechanical Engineering</i> <i>Advisor: Matei Ciocarlie</i> ◊ Columbia University Presidential Fellow | 2019 - 2024 (expected) New York, NY |
| Massachusetts Institute of Technology (MIT) <i>B.S. in Mechanical Engineering – GPA 4.3/5.0</i> <i>Thesis: "Effectiveness of Active Cooling on Torque Performance for Prosthetic Applications"</i> | June 2017 Cambridge, MA |

PUBLICATIONS

Cervantes T., Byun W., **Chen A.**, Kim K., Nealon K., Connor J., Slocum A. "A Device for Quantitative Analysis of the Thumb Ulnar Collateral Ligament". ASME. *Frontiers in Biomedical Devices, 2018 Design of Medical Devices Conference.* (2018).

Departmental & Colloquia Talks

"How jumping spiders use silk to orient themselves in midair." Bauer Forum. Harvard, Cambridge MA. Oct 2018
"How Jumping Spiders Jump." CEE 35th Anniversary Celebration. Broad Institute, Cambridge MA. Oct 2018

RESEARCH & WORK EXPERIENCE

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| Columbia Dept. of Mechanical Engineering, Robotic Manipulation & Mobility Lab <i>Graduate Researcher with Dr. Matei Ciocarlie</i> | 2019 - present New York, NY |
| Harvard Dept. of Organismic & Evolutionary Biology, Shamble Lab <i>Research Assistant with Dr. Paul Shamble</i> | 2017 - 2019 Cambridge, MA |
| Dephy, Inc. <i>Mechanical Engineering Intern</i> | Summer 2017, 2018 Maynard, MA |
| MIT Media Lab, Biomechatronics Group <i>Undergraduate Researcher with Dr. Hugh Herr, Arthur Petron, & Matt Carney</i> | 2013 - 2017 Cambridge, MA |
| Apple Inc. <i>Product Design Validation Engineer Intern</i> | Summer 2016 Cupertino, CA |
| Formlabs <i>Mechanical Engineering Intern</i> | Summer 2015 Somerville, MA |

TEACHING EXPERIENCE

Teaching Assistant, Columbia MECE E4602 - Introduction to Robotics Fall 2020
Lab Assistant, Harvard LS50 - Integrated Science Spring 2018, Spring 2019

SIDE PROJECTS / OTHER PUBLICATIONS

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| Untethered Gait Tracking for Rehabilitation Collaboration with FIGUR8, Inc. to use their wearables platform for monitoring gait trends during self recovery & long-term effects of rehabilitation post knee-reconstruction surgery. | 2018 - present |
| East Campus Roller Coaster Headed design, calculations, construction, and operation of the 2015 record-breaking wooden roller coaster. Formed and led team of students to complete \$15,000 construction project in 8 days. | 2015 |

SKILLS

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| Hardware Tools | Mill & Lathe, CNC Router, Laser Cutter, Waterjet, FDM/SLA 3D Printing, SMD Soldering/Rework, PCB Layout, Instron, Woodworking Tooling |
| Software & Languages | Python, C++, Matlab, Altium, Eagle, Solidworks, NX, Rhino, LabView |