



# MICHAEL XIAO

MECHATRONICS ENGINEER




## About Me

I am an interdisciplinary engineer with an eclectic mind and a persistent smile. I love to tinker and create, and I strive to make products that invokes a "Wow!" from those around me.

Aside from my creative and engineering interests, I am a passionate rock climber and an avid thrift shopper.

Check out my work at [michaelxiao.io](http://michaelxiao.io)

## Contacts

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## Awards & Publications

- Hunter R. Rawlings Presidential Research Scholar
- 2019 Cornell Engineering Kessler Fellow
- Elastomeric passive transmission for autonomous force-velocity adaptation applied to 3D-printed prosthetics. Science Robotics.
- Configurable Tendon Routing in a 3D-printed Soft Actuator for Improved Locomotion in a Multi-Legged Robot. IEEE.
- The Art of Automating Toast. Circuit Cellar

## Education

Cornell University (Aug 2016 - Dec 2019)

- BS Electrical and Computer Engineering
- GPA: 3.946

## Experience

Undergraduate Researcher

Organic Robotics Lab (Nov 2016 - Present)

- Researched with Dr. **Robert Shepherd** in the **soft robotics** and modern **additive manufacturing** fields
- Designed **prosthetic hand** with variable transmission and laser proprioception sensor
- Developed **pneumatic palm orthotic** with a gyroidal skeleton for paralyzed patients
- Conducted experiments on **soft actuators** and **optical sensors** to achieve fluid proprioception

Mechatronics Engineer & Designer

Facture Product Development (May 2019 - Aug 2019)

- Prototyped an eclectic mix of products including an **electric skateboard**, an **alternative keyboard**, an **SLA post-processor**, and a **glassware cleaner**
- Managed projects and planned **client meetings**

Education Intern

Autodesk (Dec 2017- Present)

- Design & conduct workshops to teach Autodesk **Fusion** and **Eagle** design programs
- **TA** for BME 4090, MAE 2250, BME 4080 design classes and **consultant** for Cornell project teams

Hardware Manager

REV Ithaca Startup Works (Dec 2017- Present)

- **Manage accelerator equipment** (3D printers, laser cutter, CNC mill) & **train inexperienced members**
- Contract design projects for member startup companies

Engineering Intern

Procter & Gamble (May 2018 - Aug 2018)

- Developed **augmented reality** software on the **Microsoft HoloLens** for use in design review
- Designed **biometric login protocol** and tested facial, fingerprint, and vein recognition

## Leadership

Lab Manager & Training Chair

Cornell Maker Club (Aug 2018 - Present)

- Organize **Cornell's largest hardware hackathon** annually
- **Coordinated the expansion** of Cornell's maker space

Biofuels R&D Lead & Vice President

Engineers for a Sustainable World (Aug 2016 - Present)

- Designed & built a **waste oil biodiesel reactor** to produce continuous fuel used by the Grounds Department while mitigating waste from local restaurants and apartments