SARAH ANGLE

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Education

B.S. Mechanical Engineering Cornell University **Graduated May 2016**

- Graduated Magna Cum Laude, with GPA of 3.97/4.00.
- Named to Dean's List all semesters.

Experience

Mechanical Engineer Fitbit Advanced Product Development **July 2016 - Present**

- Redesigned parts of current Fitbit products (housings, bands, etc.) using new materials to improve performance and quality.
- Created prototypes in wearable form factor to demonstrate new sensor and display technology.
- As the mechanical engineering lead for Smart Materials and Advanced Materials research groups, developed all models, prototypes, and tooling needed.
- Coordinated with ID and Marketing to research new products that fit customers' needs.
- Collaborated with and visited overseas suppliers for DFM feedback on designs prior to tool kickoff.
- Designed products using traditional manufacturing methods, like forging, injection molding, and machining, and more advanced material technologies, like MIM, composites, smart materials/ electronics, and premium metals.

Mechanical Engineering Intern Autodesk Office of the CTO **June - August 2015**

- Researched effectiveness of CAD software from design to build by imagining and making a product.
- Created customized orthotic glove actuated via servo-motor to improve dexterity and muscle memory for people with disabilities or learning new tasks.
- Designed mechanical architecture and components of robotic glove.
- Implemented electrical and software system to understand input commands and control motors.
- Used tools including 3D printers and scanners, 5 axis CNC mills, and an electronics lab.
- Presented findings on software functionality directly to product teams and CEO.

Undergraduate Researcher Cornell Creative Machines Lab **January 2014 - May 2015**

- Collaborated with Professor Hod Lipson and his group to design the first 3D printable actuators.
- Built experiment system and testing apparatus to measure and demonstrate properties of a new material.
- Published a paper on findings in *Advanced Engineering Materials*.

Engineering Intern Columbia Gas of Massachusetts **June - August 2014**

- Worked to replace aging utility infrastructure, assisting team of 8 engineers in designing projects with a total budget of $17 million.
- Created project plans for field construction, including maps and required materials.
- Wrote construction procedures that allowed work to be done on live gas mains.

Skills

Design Software: PTC Creo, SolidWorks, Fusion360, Inventor, AutoCAD, ANSYS, LabVIEW

Design For: Injection & Compression Molding, MIM, Forging, Die-Casting, CNC Machining, Composite Layup, Rapid Prototyping, Laser Cutting

Programming: MATLAB, C, Java, Python, Arduino, ROS

Manufacturing: 3D Printer (Objet, Ember, etc.), Laser Cutter, CNC Mill, Hand Lathe and Mill

Interests

Ultimate Frisbee, Backpacking, Road Biking, Rock Climbing, Backcountry Skiing, Live Music, Guitar