

# CAMILLE RUCKER

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## EDUCATION

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### Cornell University, College of Engineering

Ithaca, NY

*Bachelor of Science in Mechanical Engineering with minor in Design and Environmental Analysis* 2015-2019

- GPA: 3.9/4.0
- Meinig Family Cornell National Scholar
- Coursework includes Ergonomic Design, Introductory Design, Design Psychology, Visual Literacy and Design Studio, Design Graphics and Visualization Studio, Computer Science, Linear Algebra, Differential Equations, Engineering Modern Structures, Thermodynamics, Statics and Mechanics, Physics (Mechanics, E&M, Waves and Quantum), Mechatronics, Fluid Mechanics, Dynamics, Fluids of Materials

### Yestermorrow Build/Design School (gap year)

Waitsfield, VT

*Certificate in Sustainable Building and Design, Certificate in Woodworking* 2014-2015

- Designed and built independent projects including a desk, cabinets, and chairs (see website)
- Studied architecture, sustainable building technologies, permaculture and urban planning

### Phillips Exeter Academy

Exeter, NH

## EXPERIENCE

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### Undergraduate Research, Cornell University

Summer 2017

- Used SolidWorks to design auxetic lattices for use in pneumatic robots and 3D printed the structures with UV curable soft resins

### Intel Corp, Chandler, AZ

Summer 2016

- Characterized and enhanced 3D digital imaging equipment used to measure semiconductor package strain
- Characterized warpage and shape changes of microprocessor packages as a function of process conditions

### Taktse International School, Sikkim, India

Summer 2013

- Developed and led robotics curriculum for high school students. Primary English and Math teacher for first grade

### Juggernaut Design, Scottsdale, AZ

Summer 2012

- Researched, designed and prototyped products for clients. Completed independent project of collapsible water bottle drying rack

### Arizona State University Robotics Lab, Tempe, AZ

Summer 2012

- Conceptualized, built, and programmed an Arduino-controlled robot to interactively teach geometry

## SKILLS

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**Computer:** AutoCAD, SolidWorks, Java, MATLAB, Arduino, Google Sketchup, CorelDraw

**Design:** Laser Cutting, 3D Printing, Prototyping, Model Making, Woodworking, Glassblowing, Welding, Certified in Xeriscape and Desert Landscape Design

## LEADERSHIP AND EXTRACURRICULAR ACTIVITIES

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### CUSD (Cornell University Sustainable Design Project Team)

2015-

- Developing a machine learning-based smart HVAC controller to minimize energy usage and costs
- Led the design/building of a full-size model office outfitted with insulation and ductwork for HVAC system testing
- Developed thermal model and simulated heat flow of room using MATLAB to optimize for occupancy/weather

### DFA (Design for America)

2016-

- Working to increase student compliance of composting and recycling guidelines to reduce landfill waste

### Outdoor activities

- AAI Alpine Mountaineering and Technical Leadership (4 weeks), WMI Wilderness First Responder
- Trekking: Month-long Philmont Boy Scout "Rayado" backpacking trek (>250 miles), hiked Inca Trail to Machu Picchu, Rim to Rim Grand Canyon hikes
- Scuba: Rescue Diver, Emergency First Responder, Advanced Underwater, Night Diver, and 7 more

## HONORS

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NCWIT National Award Winner (National Center for Women & Information Technology)

2013