

# Maya M Lassiter

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## EDUCATION

**Carnegie Mellon University**, Pittsburgh, PA

Master of Science in Electrical and Computer Engineering May 2019

*QPA: 3.6/4.0*

Bachelor of Science in Electrical and Computer Engineering May 2017

*QPA: 3.1/4.0 Minor: Global Engineering*

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## RELEVANT EXPERIENCE

### Graduate Research Assistant

Dec 2017 – Present

Prof. Maysam Chamanzar, Dept. of Electrical and Computer Engineering, Carnegie Mellon University

- Designed light coupling mechanism for optogenetic applications
- Fabricated flexible Parylene-C waveguides
- Integrated on-chip light sources for in vivo experiments

### Nanofab Support Staff

October 2017 – Present

Carnegie Mellon University

- Supported daily activity of both nanofab and cleanroom facilities
  - Maintained inventory and coordination of clean room supplies for users
  - Involved with the transport and installation of equipment in the new nanofab
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## PROJECTS

### Piezoelectric MEMS Resonator Design

Carnegie Mellon University

Fall 2017

- Designed a multi-mode, multi-geometry system for reconfiguring AlN resonators
- Conducted theoretical analysis, COMSOL finite element analysis, and modified butterworth van dyke characterization in Cadence

### Hall Effect Based Proximity Sensing

Carnegie Mellon University

Spring 2017

- Fabricated Hall elements via Nickel electro-less plating on P-type Silicon
- Tested I-V characteristics and magnetic flux responses of Hall elements in lab environment

### Compassionate Engineering

Robotics Institute, Carnegie Mellon University

Summer 2015

- Implemented a study on the role of compassion in engineering funded by the Fetzer Institute: *"iSTEP 2015: Cross-Cultural Technology Development Toward Language Access for the Deaf and Hard of Hearing,"* Maya Lassiter, Amal Nanavati, Erik Pintar, Minnar Xie, Ermine A. Teves, and M Bernardine Dias. tech. report CMU-RI-TR-16-32, Robotics Institute, Carnegie Mellon University, June, 2016.
- Created suite of voice-powered computer games for Deaf students verbal language acquisition in Python using Pygame framework

Solar Powered Dinghy

Contracted Prototype with SunRa LLC

Winter 2015

- Retrofitted steel fishing hull with a solar canopy for in-harbor use as a passenger ready water taxi
- Designed regenerative solar-electric system with Torqueedo propeller and custom circuit housing
- Field tested prototype for commercial use in English Harbor, Antigua

## SKILLS

IRB protocol  
process flow development  
soldering  
wire bonding  
flip chip device bonding  
epoxy bonding  
composite materials  
photolithography  
soft lithography  
electro-less plating  
sputtering  
silicon etching  
MEMS characterization  
CMOS circuit analysis  
Optics characterization  
waveguide design

COMSOL  
Cadence  
Eagle PCB  
Atmel Studio  
MATLAB  
Python  
C  
SystemVerilog

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## AWARDS AND LEADERSHIP

### GEM University Fellow

### Teaching Assistant:

Electronic Devices and  
Analog Circuits

Aug 2016 – Present

### Community Advisor:

Stever House

Jan 2016 – May 2017

### President's Task Force for Student Health and Well-Being

May 2016 - May 2017

### University Leadership Student Advisory Council

Aug 2015 – May 2017