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

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

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

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