
Education

Northeastern University, Boston, MA

May 2018

Bachelor / Master of Science: Mechanical Engineering, Material Science

GPA: 3.76, Dean's List, Excellence Scholarship

Capstone Project: designing and fabricating thermal vacuum chamber for CubeSat environmental testing in coordination with NASA JPL (ongoing)

Professional Experience

Tesla, Inc., Palo Alto, CA

January – June 2017

Drive Systems Engineering Intern

- Created dashboard for real-time tracking of drive systems testing and compiling
 - Drive unit damage based on accelerated fatigue damage models
 - Reliability of drive units at the system and component level
- Developed and modified fatigue damage models based on dynamometer test logs
- Managed ¼ scale 3D prints of forthcoming drive units for assembly validation
- Supported state-of-the-art bearing damage modeling and research, including experimental test design and execution for dielectric properties of ATF-9

iRobot Corporation, Bedford, MA

January – June 2015

Systems Engineering Co-op

- Designed and constructed a modular test bed and CAD-ed (Creo) custom fixtures
- Modeled room designs with Visio, built rooms using 80/20
- Provided regular team briefings on systems testing of a project in the late stages of development
- Upgraded tracking software, for new camera, operating system, and smaller file sizes, using OpenCV Computer Vision library (C++)
- Prepared professional documentation of testing and software procedures

Research Experience

Carbon Nanostructures Research Group, Northeastern University

August 2014 - Present

Undergraduate Research Assistant

- Conducting and designing tests for carbon nanotube fiber treatment
- Investigating the following prospective projects: nanostructure-quantum dot photosensor, capped carbon nanotubes, encasing (quantum dots encapsulated in a polymer shell)
- Developing and maintaining group webpage; <https://www.coe.neu.edu/research/onsi/>

Agricultural Research Service, USDA, Beltsville, MD

June - August 2014

Pathways Intern

- Tracked photoluminescence (Raman and NIR) of a variety of wheat specimen
- Processed and analyzed spectra with MATLAB and Eigenvector PLS_Toolbox

Background and Interests and Skills

Computer Applications: SolidWorks, Creo, Catia, Inventor, Ansys

Programming: MATLAB, C++, Python, PHP, SQL, JavaScript

Professional: Computer programing, automating simple tasks, building cool stuff and fixing broken things

Personal: Playing guitar, traveling, hiking, biking and running