
Education

Northeastern University, Boston, MA

May 2018

Candidate for Bachelor of Science in Mechanical Engineering

GPA: 3.65

Honors: Dean's List, Excellence Scholarship

Courses: Thermodynamics, Mechanics of Materials, Engineering Mechanics and Design, Engineering Problem Solving and Computation, Understanding Design, Calc. I-III, Diff. Eq. and Linear Algebra

Technical Skills

Computer Applications: Creo, SolidWorks, Inventor, AutoCAD, Visio, Excel

Programming: MATLAB, C++, Python, HTML, CSS, Bootstrap

Hands-On: Experienced with lab equipment and procedures as well as hand and power tools

Languages: Spanish – Conversational

Professional Experience

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 using 80/20
- Conducted comprehensive testing on robots with in house video tracking software
- 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 on testing and software procedures

Carbon Nanostructures Research Group, Northeastern University

August 2014 - Present

Undergraduate Research Assistant

- Conducting and designing tests for carbon nanotube fiber treatment
- CAD-ing and constructing fixtures for tests and peripherals, electrolysis cell and control box, using AutoCAD, Inventor and laser cutter
- 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 with HTML, CSS, and Bootstrap

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
- Designed (AutoCAD) laser system to measure density distribution of liquids

Background and Interests

Playing guitar, traveling, hiking and running

Programming

- Automating digital tasks to increase efficiency

DIY Projects

- Building cool stuff and fixing broken things