

**EDUCATION**    **Carnegie Mellon University**, Pittsburgh, PA **May 2016**  
**Bachelor of Science in Physics, Applied Physics Track**

**RELEVANT COURSES**

Intermediate Optics Lab	Introduction to Materials Science Lab	Fundamentals of Programming
Electronics Lab	Experimental Physics Lab	Modern Physics Lab
Mechanical Engineering Lab	Solid State Physics	

**RESEARCH EXPERIENCE**    **Senior Research**  
**Physics Department, Carnegie Mellon University** **January 2016 – Present**

- Designed an electron tunneling experiment for use in Modern Physics Lab
- Trained in ultra-high vacuum and vacuum deposition techniques
- Trained in the operation and maintenance of mechanical, ion, and cryo vacuum pumps

**SKILLS**

Python	C++	FORTRAN
Interferometry	End Mill/Late machining	SolidWorks 3D modeling

**WORK EXPERIENCE**    **Instrumentation & Programming Intern**  
**Brookhaven National Laboratory (BNL), Long Island, NY** **Summer 2014**

- Improved the electrical optical measurements of the Large Synoptic Survey Telescope to be located in Chile
- Studied the characterization and manipulation of next-generation testing for fully depleted Charge Coupled Device (CCD) image sensors under Dr. Ivan Kotov of the Instrumentation Division
- Performed a pocket pumping analysis on CCDs using ds9 software and C++ to locate and identify the cause of electron traps leading to imperfections in images -- with a focus on temperature and timing dependence

**Desk Attendant, Cohon University Center Equipment Desk**  
**Athletics Department, Carnegie Mellon University** **May 2013 – May 2015**

- Interacted with gym patrons and handled inquiries about the facilities, campus, and surrounding area
- Maintained an inventory of athletic equipment and tracked gym usage

**Systems Developer, Snackbot (Human-Computer Interaction Research Project)**  
**Robotics Institute, Carnegie Mellon University** **September 2012 – May 2013**

- Maintained and upgraded SnackBot's capability to interact with customers
- Upgraded the Client Interface and Client Interface Server which simplified the process of transmitting data over sockets
- Improved the functionality of the Dialog Tree Creator which allows users to create unique dialogue trees for SnackBot with no knowledge of programming or the underlying technology

**ACTIVITIES**    **Booth Chair & Social Chair**  
**Carnegie Involvement Association Buggy & Carnival** **September 2013 – April 2015**

- Coordinate the planning of infrastructure and construction of a two-story wooden walk through structure that meets international building code, including working electricity and external waterproofing
- Assisted with the design and construction of 3 award winning buggies (soapbox derby)
- Led the restoration of an older buggy and documented procedures for the purpose of educating new members

**Eagle Scout** **May 2012**  
**Boy Scouts of America**

- Senior Patrol Leader in charge of leading 40 scouts during weekly scouting activities and camping trips