# **Personal Information**

Name: Charlie Nitschelm

Date of Birth: April 30<sup>th</sup> 1998

Place of Birth: Portsmouth, NH USA

Citizenships: United States of America

#### **Contact Information**

School Address: GSS Box 12411, Durham NH, 03824 USA

Permanent Address: 384 Peverly Hill Road,

Portsmouth NH, 03801 USA

Cell phone: +1 (603) 923-9079

Email Address: cjn1012@wildcats.unh.edu



#### **Education**

University of New Hampshire B.S. in Mechanical Engineering Physics Minor Honors Program

Cumulative GPA: 3.92

Expected Graduation: May 2020

#### **Related Course Work**

Chemical Principals for Engineers Statics

Differential Equation with Linear Algebra Thermodynamics

Multi-Dimensional Calculus Introduction to Material Science

Physics 1 – Mechanics Astronomy

Physics 2 – Electricity and Magnetism

# **Experiences**

# **Research Experience**

### UNH Institute for the Study of Earth, Oceans, and Space

May 2017 - August 2017

Research with Dr. Mark McConnell

- Used Python to conduct a systematic search of the COMPTEL data for evidence of polarization from solar flares
- Organized necessary data sets and developed tools that were needed for analysis
- Using the COMPTEL field-of-view, determined the number of source and background counts for that event, and then used simulations to estimate the polarization sensitivity for that event
- Created a systematic analysis of all gamma ray bursts that took place within the COMPTEL field-ofview

#### **Work Experience**

# **Shoal Interactive, LLC**

January 2017 - present

Business and Marketing Intern

- Attend weekly meetings to decide business and product decisions with the team
- Assist with the applications user interface and administrative writing
- Lead major marketing campaigns to neighboring towns for the release of our Coupler's alpha

# **Engineering Experience**

#### **UNH Students for the Exploration and Development of Space**

March 2017 – present

Co-Founder, CTO, Head of Rocket Propulsion

- Lead overall managerial duties of the organization including running all meetings and overseeing the goals of the organization
- Foster a learning environment for all and manage all outreach and networking events
- Head the design and manufacturing for the rocket propulsion team, which includes a two-stage solid rocket booster
- Manage all tech leads to create a high-altitude rocket to participate in the University Student Rocketry Competition in September

**UNH LunaCats** 

Sept. 2016 – May 2017

Electrical Team Member

- Designed, fabricated and coded a robotic excavator to compete in NASA's Robotics Mining Competition
- Assembled and tested the electronics box so the rover can successfully compete at Kennedy Space
   Center for the 2017 NASA-sponsored Robotics Mining Competition

#### **UNH Precision Racing**

Sept. 2016 - May 2017

Secretary, Powertrain Engineer

- Maintained all relations with the college and the surrounding community by providing outreach and an end-of-year banquet to all our supporters
- Assisted with the design of the intake system and catch cans

### Portsmouth High School Wire Clippers – FIRST Robotics

April 2015 - May 2016

Team Captain, Mechanical Lead

- Led the overall design of our robot to compete in the 2016 FIRST competition
- Managed all outreach events

# **Other Experience**

STEMbassadors Sept. 2016 – present

Member Lead in the Robotics Activity

- Volunteer in the New Hampshire area to inspire the next generation of engineers and problem solvers
- Run the World of Robotics activity where students can experiment with gear ratios and different wheel choices

Not Too Sharp Sept. 2016 – present

Bass singer and Beatbox in a Cappella group

- Attend 6 hours of rehearsals every week to prepare and perfect our repertoire
- Travel to various performances including performing the national anthem for President Obama

### Camp Mi-Te-Na

June 2015 – August 2015

Overnight Cabin Counselor and Lifeguard

- Supported the development of young campers ranging in ages from 7-15 years old
- Protected campers swimming in Halfmoon Lake as a certified lifeguard

#### **Skills**

# **Technical Skills**

Microsoft Suite | Solidworks | Python | MATLAB

#### Other Skills:

Project Management | Organizational Leadership | Creativity and Problem-Solving | Communication