# MICHAEL P. HAMMER

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## EDUCATION Bucknell University

Graduation Date May 2017

- · Major: Computer Science and Engineering, Minor: Mathematics
- · GPA: 3.87 | Engineering GPA: 3.92 | Dean's List (every semester)

# Work

## NASA Jet Propulsion Laboratory Internship

May 2016 - Aug 2016

- EXPERIENCE
- $\cdot$  Worked on developing a communication protocol with the European Space Agency using the CCSDS international networking standards for space agencies
- · Modified European networking software in Java to demonstrate transporting JPL space telemetry (data)

# NASA Jet Propulsion Laboratory Internship

May 2015 - Aug 2015

- · Developed web applications to improve Mars Relay Telemetry planners' ability to visualize multiple time references (for Mars and Earth) during their Mars-Orbiter-Earth relay planning process
- · Used HTML, CSS, Javascript, and JQuery to design a dynamic calendar that graphically depicts Earth-time and Mars-time (Sols) for each Mars mission

# NASA Jet Propulsion Laboratory Internship

May 2014 - Aug 2014

- · Created software to help visualize and assess the performance of the science data processing system used by the Orbiting Carbon Observatory mission
- · Fetched space telemetry (data) with SQL commands, parsed data into JSON format with Python, and visualized information via a web interface

# Bucknell University Teaching and Learning Center

Aug 2014 - Present

- · Conceived, implemented and led Bucknell's first computer science study group program
- · Leading Study Groups in Computer Science (3 semesters) and Physics (1 semester)

#### American Cancer Society: Relay for Life

Sep 2009 - Sep 2013

- · Committee Member and Volunteer
- · Fundraised, planned, and lead activities for main event, and organized youth activities

#### ACTIVITIES

#### Tau Beta Pi Engineering Honors Society

Oct 2016 - Present

· Exhibited integrity and excellence in engineering, service to the community, and professionalism

# Association for Computing Machinery Club

Feb 2013 - Present

 $\cdot$  Attended various events related to computer science

# **Bucknell Affinity House Member**

Aug 2016 - Present

- $\cdot$  Computing and Technology House Lived and participated in a technology-based environment
- $\cdot$  Entrepreneurship and Innovation House Attended inspirational events

# Boy Scout Troop 485, Life Scout (Rank Preceding Eagle)

Sep 2009 - Jun 2013

· Assistant Patrol Leader, Patrol Quartermaster, and Troop Quartermaster positions

# **Cross Country and Track**

Sep 2009 - Jan 2013

· Varsity, Most Improved Award, Scholar Athlete Award, Scholarship Award (model team player)

#### Projects B

# Bucknell Map

May 2014 - Present

· Used Google Maps API to build an interactive map of Bucknell University

#### Raspberry Pi Car

May 2015 - Aug 2015

· Used Raspberry Pi 2 computer to construct a car controlled via an iPhone over Wi-Fi

# Solar System Simulation

Jun 2014 - Jul 2014

· Created interactive, dynamic model of the solar system using fundamental force calculations

### TECHNICAL SKILLS

Focus Areas Networking, Web Development, Data Mining, General Programming

Primary Skills Python, Java, C, HTML, CSS, JavaScript, jQuery, Unix

Familiarity C++, SQL, R, MATLAB, LATEX, Databases, Artificial Intelligence (In Progress)