Addison Howenstine

visit my website for links to projects:
www.addisonh.com/resume

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Education

Duke University *2014 - 2018*

B.S. Eng., Majoring in Electrical & Computer Engineering and Computer Science
GPA: 3.5

Organizations

- American Institute of Aeronautics & Astronautics (AIAA) - *VP of student chapter*
- Outing Club
- Duke Climbing Team - *Captain*
- Project WILD - *Director*

Skills

- Java, C
- Matlab
- software design, data structures
- git, Eclipse
- Adobe Photoshop, InDesign, Illustrator, & Creative Cloud
- 3D modelling, Fusion 360
- 3D printing
- HTML/CSS
- Wilderness First Responder & CPR

Leadership & Volunteering

Resident Assistant

- Plan community building events for dorm section of 32 students and participate in regular on-call shifts.

Project WILD

- Teach leadership & teamwork through outdoor skills including wilderness navigation, cooking, & rock climbing on multiday backpacking trips.

DukeEngage: Thailand / GVI

- Volunteered with team of 12 Duke students working on environmental conservation and sea turtle rehabilitation
- Learned HTML/CSS during free time designing a blog to keep family and friends updated

Duke undergraduate double majoring in Electrical & Computer Engineering and Computer Science. Hoping to someday apply my technical education in engineering and computer science to further understand and explore the world around us contributing to our next giant leap for mankind. Passionate about space, education, the outdoors, and people.

Work Experience

NASA Stennis Space Center - Electrical Engineering Intern

May 2016 - August 2016

- Developed expert systems software platform for autonomous monitoring and control of rocket test systems at NASA Stennis Space Center's High Pressure Gas Facility and Kennedy Space Center's launch systems.
- Used ladder logic and physical/electrical schematics to develop a more intelligent object oriented control system to monitor sensor networks and reason with sensor data, anomaly detection, and mapped root cause error analysis.
- Helped transition our department to modern software practices using git and version control.

Reference: Dr. Fernando Figueroa, fernando.figueroa@nasa.gov

Duke Innovation Co-Lab

August 2016 - present

- Teach students and faculty at Duke how to use our 3D printers, laser cutters, and CNC machines for laboratory research, rapid prototyping, and personal projects.

Project & Research Experience

VOOGASalad Game Authoring program

- Designed program that allows users to author, design, and play a computer game from scratch. With our program, users can design games such as Super Mario, Flappy Bird, Doodle Jump, and other 2D scroller / adventure games in 30 minutes or less.
- Worked with a team of 10 students over the span of 1 month to build this program in Java. My role on the team entailed working on the front- and back-end of the authoring environment as well as managing team integration of code and XML game file saving.

Laboratory Research Assistant: Zavlanos Lab

January 2016 - present

- Pursuing Independent Study focused on use of sensor networks and SLAM algorithms on a quadcopter drone for environmental mapping and autonomous movement and decision making using a ROS software platform.

Intercollegiate Rocket Engineering Competition - Project Leader

September 2016 - present

- Leading a subgroup of our student AIAA chapter to research, design, and build a sounding rocket capable of carrying a payload of 10 lbs to a target altitude of 10,000+ ft.

Integrated Design Challenge

- Designed, constructed, and programmed a BOE-Bot with a partner using Arduino software and various sensors (QTI, Infrared Photoresistor, XBee, etc) to line follow, navigate a map, and make location based decisions.