Elijah Spiro

Current: 16 Barrett Hill Drive, Amherst, MA, 01002 • espiro18@amherst.edu • (440) 679-4557
Permanent: 33211 Outley Park Drive, Solon, OH 44139

EDUCATION:

Amherst College, Amherst, MA
Candidate for BA in Computer Science and Astronomy   Anticipated: December 2018
Current GPA: 3.56

Hawken High School, Gates Mills, OH   May 2014
GPA: 3.78

WORK EXPERIENCE:

NASA Web Development Intern, Kennedy Space Center   June 2017 – August 2017
- Supported NASA's internal Information Architecture web programs.
- Developed in-house knowledge capture and skills tracking applications.
- Provided back end maintenance to databases designed to mitigate repetitive troubleshooting.

NASA Software Engineering Intern, Kennedy Space Center   August 2016 – December 2016
- Automated testing of the Spaceport Command and Control System (SCCS).
- Used Robot and Sikuli frameworks to ensure quality of code prior to use in the Space Launch System.
- Eliminated human error and saved manpower from repeatedly testing code manually.

Summer Research Intern, Stanford University   June 2016 – September 2016
- Analyzed data collected with GPI and Magellan Telescopes to directly image exoplanets using adaptive optics.
- Improved data reduction pipeline, resulting in 5-10% clearer post-processing images.
- Adapted KLIP algorithm (principal component analysis tool) to work with Magellan data.
- Incorporated Bayesian Statistics in to existing code.
- Presented findings in a scientific conference setting.

Research in Galaxy and Star Classification, Amherst College   Fall 2015 – Spring 2016
- Created and improved a cosmic ray detection algorithm to run on FITS astronomic image files.
- Worked with Professor Jason Young to manipulate and process data collected on the VIRUS-P telescope.
- Employed IFU mapping to sort and analyze incoming stellar flux.
- Assessed elemental composition via wavelength spectroscopy.

Computer Software Development   Fall 2009 – Present
- Worked on a variety of software programming projects, including video game development, astronomic simulators and organizational tools for companies.
- Created data analysis tool to interpret flux captured by telescope fibers.

Website Manager, Solon, OH   Spring 2014 – Spring 2017
- Designed and maintained website for a Swimming Pool Management Company.

VARSITY ATHLETICS:

Team Member and two-time Captain, Amherst College Varsity Swim Team   Fall 2014 – Present
- Devoted an average of 30 hours per week to competition and practice.
- Academic All-American qualifier.
- NCAA Championship qualifier.
- Multiple school record holder.

Team Member and Captain, Hawken High School Varsity Swim Team   Fall 2011 – Spring 2014

- Devoted an average of 25 hours per week to competition and practice.
- Scholastic All-American Qualifier.
- Multiple school record holder.

SKILLS:

- Technical:
  - Proficient programmer with expertise in Java, Python, variants of C, Ruby on Rails, and Bash Scripting.
  - Capable of working with Windows, Macintosh, and Linux Operating Systems.
  - Algorithm Analysis and Design.
  - Artificial Intelligence and Machine Learning.
  - Hardware assembly.
  - Operating system design.
- American Red Cross Certified Lifeguard (including CPR and First Aid Certified.)