TAYLOR J. WASHINGTON

(404)-227-4643
Boulder, CO 80309
taylor.washington@colorado.edu

Summary

Passionate software designer with 4+ years of experience in analysis, design, and development on various hardware platforms. I am looking for a challenging opportunity in software design, development and implementation. I have experience with Agile methodology and various automation tools.

Education

University of Colorado Boulder — **Bachelor of Science:** Astronomy
Graduation Date: May 2019 — **Emphasis:** Astrophysics

Skills

Python	MATLAB	MYSQL	GitHub
Linux.	AWS	Google Cloud Platform	
Raspberry Pi	Arduino		
Agile Development	JIRA		

Relevant Experience

Freelancer (remote) – Tutorial instructor and Tech Support May 19 – Present

- Communicate with clients on weekly basis via meetings to cut down on misunderstandings by 50%
- Deliver edited, compressed, and presentable educational videos on weekly basis
- Write technical papers and articles on best coding practices and software use.

Python Developer - USGS (Subcontractor) June 19- August 19

- On the Vector Tools team at USGS
- Helped write some of the functions for the software on the National Map
- Assist in the design and implementation of Python code for new software

CU Robotics Challenge Team 2019: Software Engineer Jan - April 19

- Helped write some of the functions for the software on Raspberry Pi
- Used python on Linux to program various functions
- The result for the project was that we represented the CU Engineering team well in competition and the rover was able to sense the beacon hence move toward it autonomously.

Software Engineer - SpaceNav Jan 19 - May 19

- Analysis of events and weather in space via manual and automation tools
- Design and develop software using astrophysical and aerodynamic concepts
- Wrote software in Agile development cycles for DoD clients
- The result of the project was I created a software skeleton for burn duration of satellites.

Jr. Systems Administrator - Biodesix Feb - March 19

- Ran hundreds of jobs on the Biodesix HPC Cluster via terminal and scripting to perform calculations and gather data outputs on real world samples of Lung Cancer outcomes.
- Adapted to biotech software to perform daily tasks of organizing data from HPC jobs and Robotics team where I wrote code for the sensors and the motor.
- The result of the project was I created results from the analysis to compare deep learning model versus the old model. Thus, proving that the deep learning model was providing accurate results in a faster manner.

Independent Study: TESS mission ground based follow up Jan 19 - Present

- Analyzed candidate exoplanets from the TESS NASA mission
- Create transit curves and perform analysis on these exoplanets from SBO's telescopes via Python scripts in terminal and Jupyter Notebook
- The results of this project were that from our analysis we are able to write a strong proposal for grant money to fund further research on exoplanets (from NASA) on CU's campus. We will have to follow protocol that NASA sets for this proposal to be successful

CU Research Computing– Student Assistant: March 18-Dec. 18

- Provide support in the use of Summit (supercomputer) and other resources; events, courses,
- Provided software installation, and allocations for their research.

Fiske Planetarium-Transit2pi Research Assistant June - Dec. 18

- Designed tools (of several functions) using Python, GitHub, open source packages.
- Used TESS and Kepler Data to display any transit light curve (over 100,00!) onto the 360 degree of the Fiske Planetarium.
- Package is located in my transit2pi-experiments directory on my GitHub.
- This resulted in a tool that could be used by research scientist display any transit light curves from our functions(s).
-

Gateway to Space: by the Colorado Space Grant Consortium Dec.17 - May 18

- Developed Arduino code that enabled the solar tracking system to accurately track ascent and descent.
- The result of the project was that our team successfully collected solar flux on the solar panels during ascent and descent. Thus, we were able to say that our idea and code indeed worked.

CU Science Discovery – Teaching Assistant*:* May- July 17

- Assist in the integration of structures and software for student projects.

Independent Study: LGCOT (Las Cumbres Observatory) August 16- Sept.17

- Analyzed our own galaxies from Las Cumbres Observatory using IRAF and other python packages.
- Read and interpret data that has not been seen before using Python and Linux.