Reuben Alter

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Technical Experience

National Center for Atmospheric Research
Boulder, CO
SiParCS Intern | May 2022 - Present

- Work on an agile team developing openIoTwx, a design and guide for 3d printable, affordable, open source weather stations.
- Troubleshoot communication protocols for the station, with the goal of minimizing data loss in low bandwidth enviroments
- Streamlining software building and compiling process
- Optimizing the data collection to visualization pipeline
- Construct precise documentation to guide users through the build process
- Contributed to teams academic research output
- Highlighted proficiencies employed in the role include Arduino, Python, Shell Scripting, YAML, and JSON

Colorado College GIS Center
Colorado Springs, CO
GIS Technician | Sep. 2022 - Present

- Work within the GIS lab assisting students and professors with geospatial and cartographic needs.
- Wrote a Google Earth Engine workflow for use within the Environmental Science department
- Developed a method for drone mounted Lidar collection via Raspberry Pi
- Highlighted proficiencies employed in the role include Python, Esri Suite, Shell Scripting, and MATLAB

NASA Applied Sciences
Remote
DEVELOP Participant | Jun. 2022 - Aug. 2022

- Worked with a team to create a lightning ignited fire risk analysis model and set of maps for the Central region of Chile.
- Created a technical paper and presentation detailing our work and presented it to various groups within NASA Applied Sciences.
- Wrote software to spatiotemporally relate lightning strikes and thermal anomalies from NASA and NOAA satellite sensors
- Highlighted proficiencies employed in this role include Python, ArcGIS Pro, SQL, AWS CLI, and some Shell Scripting

Education

Colorado College
Colorado Springs, CO
Major: Mathematics (Applied Track) | Jan. 2021 - Present

- GPA: 3.93
- Pertinent Coursework: Python for the Applied Sciences, Mathematical Statistics, Probability, Linear Algebra, Calculus 3

Skills

Programming Abilities	Python, Git/Version Control, Arduino, FORTRAN, R, MATLAB, LaTeX
Linux	Proficient in command line use, Shell scripting, and system management
Softwares	ArcGIS Pro and Online, QGIS, Microsoft and Google Suites

Other Work Experience

Colorado College EMS
Colorado Springs, CO
Emergency Medical Technician | Aug. 2021 - May 2022

Provided shift-based and on call medical services to my college. I was also a member of the campus emergency response committee.

USFS - Rocky Mountain Ranger District
Augusta, MT
Wildland Firefighter | May 2021 - Aug. 2021

Served as medical lead and a firefighter for the Lewis and Clark Wildland Fire Module. We specialized in self-sufficiency and wilderness fires.

Washington Department of Natural Resources
Twisp, WA
Wildland Firefighter | May 2020 - Oct. 2020

Worked on an wildland fire engine in a zone with prevalent Wildland-Urban Interface.

American Conservation Experience
Flagstaff, AZ
Corpsmember | Sep. 2019 - Mar. 2020

Built trails, assisted burn area emergency response, and did prescription logging.