Reuben Alter

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Technical Experience

National Center for Atmospheric Research — *Boulder, CO*
SiParCS Intern — *May 2022 - Present*
- Work on the team developing and optimizing 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
- Build and deploy weather stations
- Construct precise documentation to guide users through the build process
- Contribute to global analyses of weather data inequity

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.
- When not performing in the teaching role of this position, I complete projects in the geospatial field for the department and campus i.e. creating a Google Earth Engine workflow & programming a raspberry pi to log data for a drone mounted lidar.
- 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.
- My work focused on writing 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, 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.