**WORK EXPERIENCE**

**University of Oregon,** Eugene, OR September 2022-Present

*Research Assistant*

* Conduct University of Oregon research as a part of a large interagency post-fire study
* Plan and execute winter multi-day field data collection campaigns in a remote area
* Operate Emlid Reach RS2 GNSS GPS base station and rover for Precise Point Positioning (PPP) and RTK GPS techniques
* Pilot DJI Matrice 300 RTK UAS and DJI Mavic Pro 2 during LiDAR UAS and photogrammetry data collection
* Process .LAS point cloud files using Python, R, LAStools and cloudcompare, produce Digital Elevation Models (DEMs), Digital Terrain Models (DTMs), and Canopy Height models (CHMs)
* Process photogrammetry data using Agisoft Metashape Pro

**U.S. Geological Survey Surface Water Division,** Central Point, OR *March 2019-August 2022*

*Hydrologic Technician GS-08 step 2 Term*

* Operated, calibrated and troubleshot SonTec and TRDI acoustic instruments for measuring stream discharge
* Installed, wired and programed data collection platforms, pressure transducers, meteorological stations, radio and satellite communications hardware
* Trained junior staff in site visits to meteorological stations
* Collected, processed, maintained, checked, approve dand published time series data, discharge measurements and rating curves using USGS software
* Planed and conducted field campaigns involving the construction of stream gages structures and instrument installations

**National Park Service,** Zion National Park *Sept 2018-Nov 2018*

*Hydrologist Intern, Geologic Society of America Geoscientist in the Parks Program*

* Perform a baseline inventory of springs and seeps along the East Fork Virgin River within Zion National Park using sampling methods adapted from the Northern Colorado Plateau Monitoring Networks Protocol
* Used ArcGIs to produce layers and maps of spring locations
* Received training by senior staff on documenting geologic hazard activity, USGS gage stations, groundwater well monitoring, fisheries work

**U.S. Forest Service**, Salmon, ID *May 2017-August 2018*

*Crew Lead, Hydrologic Technician GS-05*

* Responsible for a team comprised of 3-5 USFS technicians in a remote field setting during 8 day hitches
* Collaborated with crew members to accurately collect stream attributes using the PIBO-EMP protocol
* Operated a electronic data logger, Garmin InReach personal beacon, satellite phone and conductivity/temperature meter
* Operated a 4x4 vehicle on remote roads, hiked and backpacked long distances over uneven terrain with a 50lb+ pack
* Utilized ArcGIS 10, Microsoft Excel and Access to manipulate and enter data, create maps, solve problems and for data quality assurance

**Teton Science Schools**, Grand Teton and Yellowstone National Parks, WY *September 2016-May 2017*

*Field Education Instructor*

* Designed and implemented place based curriculum to meet specific group learning goals
* Provided mentorship and professional development for AmeriCorps participants
* Responsible for the safety of groups during naturalist hikes in the Grand Teton National Park and Yellowstone National park
* Facilitated the use of the Doug Walker Challenge course, including high ropes elements, belay school and course breakdown
* Guided students in self-designed comparative field experiments with topics such as water quality vs. macro invertebrate presence and stewardship projects such as stream bank restoration

**Teton Timberframe**, Driggs, ID *October 2017-March 2018*

*Apprentice Timberframer*

* Constructed sustainable modern post and beam structures while developing strong teamwork and interpersonal skills
* Collaborated with engineers and designers for efficiency and accuracy
* Operated large power tools and hand tools: circular saws, electric chainsaws, chain mortisers, drill presses, power planers, impact drivers, chisels, rasps etc.
* Repurposed and reshaped reclaimed lumber for environmentally conscious structures
* Operated heavy machinery such as material handlers and man lifts

**EDUCATION**

**University of Oregon,** Eugene, OR

Masters of Science in Geography with remote sensing focus (expected June 2024)

**Current GPA:** 4.30/4.00

**St. Lawrence University,** Canton, NY

Bachelors of Science in Mathematics with Geology minor

**GPA:** 3.65/4.00 **Major GPA:** 3.85/4.00

**Honors:** Magna Cum Laude, Honors in Mathematics, Pi Mu Epsilon Honorary Society, Sigma Gamma Epsilon Honorary Society

**VOLUNTEER EXPERIENCE**

**Vermont Department of Environmental Conservation**, Cabot, VT *April 2016-May 2016*

*Geologic Field Assistant*

* Classified soils and surficial materials by sampling soil pits and road cuts and recorded position using GPS equipment
* Assisted in interpretation and investigation of landforms and potential glacial processes

**Teton Science Schools**, Grand Teton and Yellowstone National Parks, WY *May 2016-August 2016*

 *AmeriCorps Field Education Participant*

* Volunteered 450 hours in service of youth education and promotion of scientific literacy within local communities
* Participated in projects including mapping of invasive plant species and Ditch Creek riparian restoration

**Conservation Commission**, Bristol, VT *June 2015-May 2016*

*Board Member*

* Promoted public awareness and preservation of natural resources
* Coordinated conservation projects within the community

**ADDITIONAL COURSEWORK and Training COMPLETED**

**CUAHSI-SINTER Snow Measurement Field School 3/2023**

**Part 107 UAS FAA certification 2/2023**

**USGS training: 3/2019-8/2022**

**ADCP Measurements**

**Surface Water Records Management**

**Intro to R programming language**

**Photogrammetry techniques; Agisoft Metashape software**

**SOLO WFR, CPR and AED Certification 6/2016 (Renewed 8/2019)**

**Zion National Park Search and Rescue Team Member 11/2018**

**Forest Soils in the Hogback Ecoregion 4/2015**

**REFERENCES**

**W. Carl Saunders**

USFS PIBO Monitoring Program Fish Biologist williamsaunders@fs.fed.us

**Christen Girard**

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**Cassity Bromley**

Zion National Park Chief of Resources Management and Research cassity\_bromley@nps.gov

**Brandon Overstreet**

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