BRIDGET M. HASS

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Summary

Skilled in developing open, reproducible workflows for remote sensing data processing and analysis. Experience developing and teaching open-source tutorials in Python Jupyter Notebooks and Google Earth Engine for working with aerial lidar and hyperspectral data.

Relevant Experience

2016 – Present **National Ecological Observatory Network (NEON) Airborne Observation Platform (AOP)**
Battelle Memorial Institute; Boulder CO

2018 – Present ***Remote Sensing Data Scientist***

- Develop automated, version-controlled workflows for lidar processing and generating open access remote sensing (aerial lidar, hyperspectral, camera) data products
- Create and teach live-coding tutorials on reproducible workflows using NEON remote sensing data
- Create and maintain remote sensing data pipelines
- Lead field campaigns for lidar validation and hyperspectral radiometric calibration

2016-2018 ***Remote Sensing Technician Specialist***

- Process remote sensing data from raw to higher level data products, perform QA/QC
- Conduct calibration processing and associated field work
- Update and maintain processing pipeline, prepare technical documentation

2012 - 2015 ***Graduate Research and Teaching Assistant****,* Oregon State University College of Earth, Ocean, and Atmospheric Science; Corvallis, OR

- Thesis on subduction zone heat flow modeling for the International Ocean Drilling Program (IODP) Costa Rica Seismogenesis Project (CRISP). Published findings in G^3 (Geochemistry, Geophysics, Geosystems)
- Consulted on international marine oil exploration cruises; collected, processed, and analyzed marine heat flow data for use in models to locate offshore petroleum reservoirs
- Taught undergraduate laboratory courses in geology, geophysics, and atmospheric science.

2011-2012 ***Marine Geophysical Technician***, Scripps Institution of Oceanography, University of California San Diego; San Diego, CA

- Assembled, maintained, repaired, and assisted with shipboard operations of marine geophysical instruments including multichannel seismic reflection, magnetometers, and echosounders on scientific research cruises

Relevant Experience, Continued

2010 ***Field Geophysicist***, Dewhurst Group, LLC

- Conducted magnetotelluric (MT) surveys for geothermal energy exploration consulting company
- Generated daily field operation reports and mapped completed surveys
- Wrote an instruction manual for MT field methods

Education

2012-2015 **M.S., Oregon State University, Corvallis, OR**

- Degree in Earth, Ocean, and Atmospheric Science, Concentration in Marine Geophysics
- Research projects in seismology and heat flow

2007-2010 **B.S., Cornell University, Ithaca, NY**

- Degree in Science of Earth Systems
- Honors thesis on seismic receiver functions to map geothermal profile of New Mexico

Selected Open-Source Training

Oct 2020 ***Google Earth Engine for Ecology and Conservation*** – Organization for Tropical Studies

Feb-June 2020 ***Data Science Nanodegree*** – Udacity 4 month/160 hr training in Python to learn Data Science principals including data pipelines, software engineering principles, machine learning, and recommendation systems

Feb 2020 ***CyVerse Foundations for Open Science Skills*** – University of Arizona; week long workshop on open science skills, version control, reproducible research

Jan 2017 ***Reproducible Science Curriculum Hackathon*** – Berkeley Institute for Data Science Reproducible Research using Jupyter Notebooks

Workshops and Teaching

2020 - 2021 **Instructor:** *CyVerse-NEON Airborne Observation Platform Workshop* (Nov 2020 and Nov 2021) Open source tools in R, Python, and Google Earth Engine for working with NEON AOP data in the CyVerse computing environment.
Webinar Co-Host: *Bright Lights, Big Data* (Feb 2021)*: Leverage NEON's Datasets and Resources*. https://cyverse.org/webinar-NEON

2017 & 2018 **Developer & Instructor:** Remote Sensing Data Institutes: *Working with NEON AOP Remote Sensing Data in Python*. https://www.neonscience.org/resources/learning-hub/workshops/neon-data-institute-2018-remote-sensing-reproducible-workflows

Links

LinkedIn: https://www.linkedin.com/in/bridget-hass-63123691

GitHub: https://github.com/bridgethass