

EDUCATION

University of California, Berkeley

B.S. in geophysics, applied mathematics; GPA: 3.91

Phi Beta Kappa scholar

Berkeley, CA

Aug. 2013 – Aug. 2017

RESEARCH EXPERIENCE

American Museum of Natural History

Helen Fellow

New York, NY

Sept. 2018 – Present

- Developing computational science techniques to detect (sub)mesoscale eddies in Northwestern Atlantic Ocean and analyze biogeochemical interactions
- Mentoring high school girls in computational oceanography techniques

North Coast Regional Water Quality Control Board

AmeriCorps member

Santa Rosa, CA

Oct. 2017 – Aug. 2018

- Collected field data such as streamflow, water quality grab samples, irradiance and anadromous fish activity
- Led projects including modeling riparian shade and vegetation, analyzing Klamath River water quality and assessing low-streamflow conditions in Trinity River watershed
- Organized four volunteer watershed restoration projects in Santa Rosa region after wildfires

UC Berkeley Department of Earth and Planetary Sciences

Student researcher

Berkeley, CA

Aug. 2016 – Present

- Developing technique with Professor Mark Richards to estimate age and deformation of inflationary lava flows in hotspot regions
- Building models with Matlab of seafloor bathymetry subjected to loading by inflationary lobes
- Writing up findings for publication in peer-reviewed journal

Summer of Applied Geophysical Experience (Los Alamos National Lab)

Student

Santa Fe, NM

June 2016 – July 2016

- Collected data in the field using seismic reflection and refraction, gravity measurements, magnetotellurics, transient electromagnetics (TEM) and well logging
- Analyzed TEM and well data in the Buckman Well Field to investigate source of groundwater hydrological anomaly

UC Berkeley College of Engineering

Environmental engineering research intern

Berkeley, CA

May 2015 – Aug. 2015, July 2016 – Aug. 2016

- Conducted research with PhD student Gabrielle Boisrame on connection between fire and groundwater flow in Yosemite National Park's Illilouette Creek Basin
- Used time-domain reflectometry probes to gather soil moisture data and pressure chamber to measure water potential
- Analyzed data and gathered satellite photos of region to study

WORK EXPERIENCE

The Daily Californian

Managing editor

Berkeley, CA

Aug. 2015 – May 2016

- Held No. 2 position at award-winning newspaper, managing a staff of more than 200 students
- Oversaw print production four times per week and a constantly updated website

Staff representative

May 2017 – August 2017

- Organized and financially managed summer orientation and annual retreat to Lake Tahoe
- Served as confidential resource for staff members needing advice or conflict resolution

Night editor

December 2014 – April 2015

- Last pair of eyes to oversee and OK the paper before sending it to printer
- Mentored copy editors through process of writing headlines, copy editing stories

Senior staff writer

August 2013 – December 2014, August 2016 – May 2017

- Wrote more than 75 stories on Berkeley goings-on, scientific news, sexual assault and student government
- Edited stories for grammar and libel, wrote headlines for print paper and online

California Academy of Sciences

San Francisco, CA

Education intern

May 2014 – Aug. 2014

- Designed displays and enrichment activities on California geology and owl-pellet dissections for the Academy's Naturalist Center
- Organized the center's extensive rocks and mineral collections

CalTeach

Berkeley, CA

Student teacher at Willard Middle School

Jan. 2014 – May 2014

- Worked in a fieldwork placement in a local Berkeley school teaching middle-school math
- Attended weekly classroom meetings to discuss pedagogical techniques for math

ICU Oakland

Oakland, CA

Intern

Jan. 2014 – May 2014

- Mapped location of surveillance cameras in downtown Oakland
- Analyzed data surrounding surveillance and interviewed residents about their sense of security

Youth Conservation Corps

El Portal, CA

Employee

June 2013 – Aug. 2013

- Rebuilt trails in Yosemite National Park, including Panorama and Tenaya Lake trails

SKILLS

Languages and Software

Python

R

Matlab

SQL and Microsoft Excel

Certifications

Wilderness First Aid

CPR and First Aid

Swift Water Rescue

CCC Blue Card driver

Field skills

Northern California fish ID

Streamflow measurement

GPS and navigation

Field note-taking and equipment
trouble-shooting

PUBLICATIONS AND PRESENTATIONS

NCRWQCB 2019. Quantification of Instream Flow in Select Trinity River Tributaries and Comparison to Water Use Estimates, North Coast Regional Water Quality Control Board, Santa Rosa, CA. *in press*

Abbott K, Lindo-Atichati D, McWilliams J, Gula J. Mesoscale and submesoscale eddy dynamics in the Northwestern Atlantic. Poster presented at: Association for the Sciences of Limnology and Oceanography Aquatic Sciences Meeting; 2019 Feb. 23 – March 2; Puerto Rico, U.S.

Abbott K, Hevaert, C, Turner R, Creager, C. Klamath River Baseline Water Quality Assessment. Oral presentation at: Spring 2018 Klamath Basin Monitoring Program meeting; 2018 May 2-3; Yreka, Calif.

Abbott K, Le L, Butkus S. Seeing the 'Random Forest' for the Trees: Predicting Riparian Vegetation in Mark West Creek. Poster presented at: 36th Annual Salmonid Restoration Conference; 2018 Apr. 11-14; Fortuna, Calif.