

Nicole M. Aikin

Curriculum Vitae

Department of Earth and Space Sciences
University of Washington
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EDUCATION

Ph.D., Earth and Space Sciences University of Washington Thesis and Research Interests: Interactions between metamorphism (petrology), deformation (structural geology), and partial melting in determining the evolving rheology (strength) of the middle crust during mountain-building collisions Stay tuned for interesting work on some beautiful rocks! Advisor: Dr. Cailey Condit	In Progress 4.0, <i>Cum GPA</i>
B.S., Earth Science University of California, Santa Barbara <i>High Honors</i> in Earth Sciences, Geology Emphasis Sr. Honors Thesis: "Reconnaissance Geochronology of the Ohio Range, Southern Horlick Mountains, Antarctica: Insights into Crustal Evolution of Neoproterozoic to Paleozoic Ross Orogen Magmatism from In-Situ Zircon U-Pb and Hf Isotopic Analyses" Advisor: Dr. John Cottle	Dec 2019 3.82 <i>Cum GPA</i>
Transfer Coursework, Diablo Valley College – Pleasant Hill, CA	2014-2017, 2019 3.75 <i>Cum GPA</i>

RESEARCH

GRANTS AND FELLOWSHIPS

National Science Foundation Graduate Research Fellowship – \$138,000	2021-2026
Seattle Chapter ARCS Foundation Graduate Research Fellowship – \$17,500	2021-2024
UW ESS Anthony Qamar Endowed Memorial Fund 2023- \$3,000	2023
UW ESS Anthony Qamar Endowed Memorial Fund 2022- \$3,000	2022
GSA Student Research Grant - \$2,500	2022
Geological Society of America, On to the Future Student Scholarship Grant – \$500	2019

GRADUATE HONORS

'Is This Real Life?' Award University of Washington ESS Research Gala <i>Award for best explanation of a real-world problem</i>	2023
New Ideas, Educative Horizons University of Washington ESS Research Gala <i>Award for best DEI-related poster</i>	2023
Rookie of the Year Award University of Washington ESS <i>Voted by my peers to be the most valuable community member in my incoming 1st year cohort to show their appreciation for all I do both academically and interpersonally</i>	2022

UNDERGRADUATE AWARDS

UCSB Earth Science Outstanding Graduating Senior – \$1000	2019
UCSB Earth Science Field Award – \$2,000	2019
UCSB Earth Science Distinction in the Major	2019
UCSB Earth Science Outstanding Academic Achievement	2019
UCSB Earth Science Robert M. Norris Prize in Field Geology – \$500	2018
Coast Geological Society Pacific Section American Association for Petroleum Geosciences Undergraduate Scholarship Award – \$1,000	2018

PUBLICATIONS

Chloë Bonamici, Cailey B. Condit, Victor E. Guevara, **Nicole M. Aikin**, Michael L. Williams, Karl E. Karlstrom (*in review*). How melts can strengthen the continental crust: pegmatites of the Grand Canyon. *Geology*.

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CONFERENCE PRESENTATIONS

- Aikin, Nicole**, Condit, Cailey; Williams, Michael L.; Bonamici, Chloe E.; Mulligan, Suzanne R.; Karlstrom, Karl: “Timing is Everything – in the right context: monazite petrochronology of the Grand Canyon’s Upper Granite Gorge reveals the timescales of orogenesis”. In: AGU Annual meeting (San Francisco, CA). Planned December, 2023.
- Aikin, Nicole**, Condit, Cailey; Williams, Michael L.; Karlstrom, Karl: “Constraining Timescales of Orogenesis: Monazite petrochronology of the Grand Canyon’s Upper Granite Gorge”. In: Gordon Research Conference on Geochronology - Timing, Tempo and Drivers of Lithospheric Evolution (Mt. Snow, West Dover, VT). August 2023. Poster.
- Aikin, Nicole**, Condit, Cailey; Williams, Michael L.; Karlstrom, Karl: “Constraining Timescales of Orogenesis: Monazite petrochronology of the Grand Canyon’s Upper Granite Gorge”. In: Gordon Research Seminar, Geochronology – Early Career Seminar (Mt. Snow, West Dover, VT). August 2023. Poster.
- Aikin, Nicole**, Condit, Cailey; Williams, Michael L.; Karlstrom, Karl: “Monazite Petrochronology Reveals the Lifecycle of an Orogen: Example from the Upper Granite Gorge, Grand Canyon”. In: GSA Cordilleran Section meeting (Reno, NV). May 2023. Talk.
- Nicole M. Aikin**, William F. Hoover, Cailey B. Condit. “Boots on the Ground: Going Beyond Land Acknowledgements”. In: AGU Fall Meeting 2022 (Chicago, IL). December 2022. Poster.

LABORATORY EXPERIENCE

- Graduate Research** – Umass Electron Microprobe / SEM Facility 2022-2023
Quantitative microanalysis, characteristic X-ray Mapping (compositional mapping) and imaging via wavelength dispersive spectrometry on Cameca SX-100 Electron Microprobe. In-situ elemental analyses of geochronometers (monazite and xenotime) and imaging via WDS and electron backscatter using the Cameca SX-Ultrachron Electron Microprobe.
- Independent Research Assistant** – Earth Research Institute, UC Santa Barbara 2017 - 2019
Target mineral preparation and imaging via cathodoluminescence on FEI Quanta 400f SEM and in-situ isotopic analyses of geochronometers using a *Nu Plasma* HR MC-ICPMS and a *Nu Plasma 3D* MC-ICPMS.

FIELD EXPERIENCE

- Grand Canyon Basement Field Forum** – University of Washington 2021
Two-week rafting trip through the Grand Canyon (280 river miles) organized by collaborators, Dr. Mike Williams, University of Massachusetts, Amherst and Dr. Karl Karlstrom, University of New Mexico to sample, study, and learn about the Precambrian basement rocks exposed along the Colorado River Corridor – Ph.D. dissertation fieldwork.
- San Francisco Bay Area** – TRC Environmental Solutions, Inc. 2019-2021
Site hazard characterization related to environmental consulting work experience.
- Northern Schell Creek Range** – University of California, Santa Barbara 2019
Six-week field camp: geologic mapping and structural analysis focusing on understanding geologic and tectonic evolution of the region through constraining fault kinematics and timing of deformation; relative timing and stratigraphy of volcanic eruptions; and relative timing and rates of sedimentary deposition.
- Rainbow Basin and Owl Canyon** – University of California, Santa Barbara 2019
Spring break field camp: Geologic mapping, structural analysis, and tectonic interpretation of the Miocene Barstow Formation and surrounding units.

TEACHING AND MENTORING

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- Teaching Assistant** – UW ESS GeoClub 2023 Spring Break Trip March 2023
Co-taught a group of 11 UW undergraduate students on geology of basin and range region and cultural heritage on a week-long field excursion to Arizona and the Grand Canyon.
- Intern Coordinator** – TRC Environmental Solutions, Inc. 2020 -2021
Conducting interviews, hiring, training, mentoring, and managerial oversight of three aspiring environmental consultants through TRC’s internship program.
- Undergraduate Student Mentor** – University of California, Santa Barbara 2018 - 2019

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Training and oversight of laboratory research methodologies for standard mineral separation techniques (e.g. crushing, sieving, hydrodynamic density separations, picking, and mounting).

Peer Tutor - Learning Center, Diablo Valley College English Department

2016 - 2017

Private mentorship appointments and drop-in tutoring to develop reading, writing, grammar, and study skills for students learning English as a second language.

WORK EXPERIENCE

Project Geologist - TRC Environmental Solutions, Concord, CA

2019 - 2021

Environmental consulting experience focusing on geologic and hydrogeologic characterization, risk management, and remediation, including: collection of soil, soil vapor, groundwater, and surface water samples; data manipulation and preparation of reports; and presentations to various government and private-sector clients, including California Environmental Protection Agency Regulatory entities.

SERVICE

VOLUNTEER POSITIONS

Diversity Coordinator - Geochronology Division Board of Directors

2019 - Present

Geological Society of America

Indigenous Ally & Activist - Heron's Nest Duwamish Repatriation Project

2022 - Present

University of Washington, Dept. of Earth and Space Sciences

Informal GRFP Application Mentor - Using my experience to successfully assist peers

2022 - Present

through the NSF GRFP application process. Successes: Jessica Ghent, 2022

(UWashington). Current 2023 mentees: Sofie Johnson (UWashington), Isabel Koran

(Princeton), Nicole L. Ferrie (UT Austin)

Minerals and More Instructor - Rock'n'Out K-12 Outreach Program

2022 - Present

University of Washington, Dept. of Earth and Space Sciences

Peer Mentor - ESS Peer Mentoring Program

2022 - Present

University of Washington, Dept. of Earth and Space Sciences

Committee Member - ESS Diversity Equity & Inclusion Committee

2022 - Present

University of Washington, Dept. of Earth and Space Sciences

Committee Member - ESS Student Research Gala

2022 - Present

University of Washington, Dept. of Earth and Space Sciences

Coordinator - ESS Grad Nominated Speaker

2022 - Present

University of Washington, Dept. of Earth and Space Sciences

Discussion Leader - Joint Grad and PostDoc URGE Pod and JEDI Reading Group

2021 - 2022

University of Washington, Dept. of Earth and Space Sciences

Co-Founder, Discussion Leader - Collaborative Change Initiative

2020 - 2021

TRC Environmental Solutions, Inc.

PROFESSIONAL PRESENTATIONS

Invited Panelist - SZ4Grad's Webinar Discussion:

2023

"DEI in Subduction Zone Research"

Session Convener - GSA Annual Meeting 2022 in Boulder, CO

2022

"T28. Integrative Field Rheology for the Investigation of Tectonic Systems"

Environmental Consultant, Technical Support - Contra Costa County [Public Forum](#):

2020

"Keller Canyon Forensic Audit: Assessment of Potential Inappropriate Disposal of

Waste Material from Former Hunters Point Naval Shipyard at Keller Canyon Landfill"

Invited Panelist - Geological Society of America's [GeoCareers Webinar](#):

2020

"From GSA Student Representative to Professional: The Importance of Being Proactive in our Society"

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PROFESSIONAL ENGAGEMENTS

Petronet
SZ4D / SZ4Grads
Disabled Geoscientists
Geological Society of America
American Geophysical Union
ARCS Foundation
National Science Foundation
TRC Collaborative Change Initiative

CREATIVE ENGAGEMENTS AND THINGS THAT SPARK JOY

Amateur singer/songwriter
Novice instrumentalist (soprano uke, guitar, piano, hand drum)
Aspiring Artist (digital illustration, stained glass)
Enthusiastic Yogi (sometimes the hardest part is showing up!)
Complete Dork (talk to me about video games, sci-fi/fantasy, anime, film, etc.)
Reading, but outdoors!
My dog, Bagel <3