

Kevin Wallace Shionalyn

(né Hatch)

Kevin.Shionalyn@austin.utexas.edu KevinShionalyn@gmail.com

Education

Ph.D., Geosciences	2026	<i>Expected</i> , University of Texas at Austin (UT-A), Advisors: Dr. Ginny Catania & Dr. Daniel Trugman, Dissertation: “Forecasting Glacier Terminus Retreat Using Machine Learning”
B.S., Geology	2021	Central Washington University (CWU), <i>Physics</i> Minor, 3.98 GPA, Advisor: Audrey Huerta, Thesis: “Isostatic Model of Antarctica from Receiver Functions,” Dean’s List, Robert D. Bentley Award for Superior Academic Performance
Licensure Program	2016	Central Washington University (CWU), <i>Special Education & Elementary Education</i>
B.S., Political Science	2009	Southern Utah University (SUU), 3.82 GPA

Employment

2022-present	<i>Graduate Research Assistant</i> , University of Texas at Austin, Jackson School of Geosciences, Institute for Geophysics
2021-2022	<i>Grad Fellow</i> , University of Texas at Austin, Jackson School of Geosciences, Institute for Geophysics
2021	<i>Research Scientist</i> , University of Texas at Austin, Institute for Geophysics
2020-2021	<i>Research Assistant</i> , Central Washington University (CWU), NSF-funded grant
2019-2020	<i>Training Assistant, Barista</i> , Central Washington University Dining Services
2016-2019	<i>Special Education Teacher</i> , North Kitsap School District, Suquamish Elementary
2012-2015	<i>Program Assistant</i> , University of Washington, College of Education, Teacher Education Program
2009-2012	<i>Administrative Assistant</i> , New Freeway Hall, Seattle, WA
2009	<i>Intern</i> , Office of Representative Jim Matheson, Washington, DC
2008-2009	<i>Undergrad. Teaching Assistant</i> , Southern Utah University, Dept. of Political Science & Criminal Justice
2007-2008	<i>Field Technician, Laboratory Technician</i> , Applied Geotechnical Engineering Consultants (AGEC), St. George, UT – Cedar City, UT
2003-2005	<i>Projectionist</i> , Westates Theatres, St. George, UT

Undergraduate Research Experience

2021	NSF Graduate Research Fellowships Program, Honorable Mention
2020-present	“Isostatic Model of Antarctica from Receiver Functions,” evaluating seismic data to determine where the Antarctic crust is isostatically supported, using: MATLAB, with Dr. Audrey Huerta, CWU, NSF-funded grant
2020	“Constraining Antarctic geothermal heat flow with crustal thicknesses from receiver functions,” proposed research project for the NSF’s Graduate Research Fellowship Program
2020	“Glacial Landscapes in Tectonically Active Regions,” evaluating drainage patterns of the Scott Glacier Basin, Antarctica, using: ArcGIS, with Dr. Audrey Huerta, CWU
2009	“The American Use of Torture: Popularity versus Applicability,” evaluating post-9/11 torture practices in America, with Dr. Michael Stathis, SUU

Field Experience

2022 August	Acoustic Data, Imagery, and Plume Investigation of Hubbard and Turner Glaciers, Disenchantment Bay, AK
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- 2021 April Ground Penetrating Radar and Elevation Survey, a survey of the Pot Hills and other glacial features on the Waterville Plateau, WA
- 2020 Summer Geologic Field Methods, grade=A, 9-week intensive field camp and mapping experience
- 2019 Fall Introduction to Field Methods, grade=A, 2-week intensive in Owens Valley, CA
- 2007-2008 AGECE, *Field & Laboratory Technician*, responsible for obtaining soil, cement, and asphalt samples from work sites, running field compaction tests, and running laboratory experiments on collected samples, based in St. George, UT – Cedar City, UT

Conferences & Presentations

- Dec 2022 American Geophysical Union (AGU), 2022 Fall Meeting, “Working from the ground up - initiating a new code of conduct for improved inclusion”, ED55A: Advancing Community, Equity, and Inclusion in the Polar and Alpine Sciences II Oral Session, primary presenter
- Dec 2022 American Geophysical Union (AGU), 2022 Fall Meeting, “Forecasting Glacier Terminus Retreat Using Machine Learning”, C52C: A Data-Driven Cryosphere: Insights from Machine Learning and Other Statistical Methods II Poster Session, primary presenter
- Oct 2022 ICESat-2 Science Composium, “Revealing the processes controlling outlet glacier seasonality with ICESat-2,” co-author
- Dec 2021 American Geophysical Union (AGU), 2021 Fall Meeting, “Data Assemblage for Machine Learning Aided Glacier Termini Prediction”, C35A: Forcing and Response of Grounded Ice at the Ice-Ocean Interface II Poster Session, primary presenter
- Nov 2021 Jackson School of Geosciences Diversity Graduate Preview Day Enhancing Diversity in Geoscience Graduate Education (EDGE), Graduate Student Panel, panelist

Professional Associations

- 2022-present Interagency Arctic Research Policy Committee (IARPC), member
- 2021-present Association of Polar Early Career Scientists (APECS), member
- 2021-present International Association of Cryospheric Sciences (IACS), member
- 2020-present American Geophysical Union (AGU), student member
- 2020-present Out to Innovate (formerly NOGLSTP), member
- 2019-2021 Association of Environmental and Engineering Geologists (AEG), Puget Sound chapter, member

Community Outreach & Involvement

Geology & Educational Outreach

- 2021-present: Science Y’All, Jackson School of Geosciences student blog, editor & contributor
- 2021-2022 UT-A Peer Mentorship Program
- 2019-2021 CWU Geology Club, student club, Vice President
- 2019-2021 Association of Environmental and Engineering Geologists (AEG), student club, Vice President
- 2018-2019 Trauma-Informed Schools Initiative, Suquamish Elementary representative

LGBTQ+, Diversity Outreach

- 2021-present Diversity, Equity, Accessibility, and Inclusion (DEAI) Committee, University of Texas Institute for Geophysics, graduate student representative
- Nov 2021 Jackson School of Geosciences Diversity Graduate Preview Day Enhancing Diversity in Geoscience Graduate Education (EDGE), Graduate Student Panel, panelist
- Sep 2020 “You Don’t Look Like a Geologist,” AEG, diversity webinar attendee

Aug 2020 “Inclusive Collaborations in Antarctic Research,” panel, SCAR national meeting attendee
 2019-2020 Queer Art Collective (QuAC), CWU student club, founding member
 2008-2009 Southern Utah University Wellness Center, HIV Counselor & test administrator
 2008-2009 Southern Utah University Queer Straight Alliance, vice-president

Licensing & Training

2022 Machine Learning at Texas Advanced Computing Center (TACC) Training Series
 2021 NASA IT Security Training
 2020 Responsible Conduct of Research (RCR) training
 2016-current Washington State Elementary Education Certification
 2016-current Washington State Special Education Certification
 2008-2009 HIV-Partner Counseling and Referral Services, Utah Dept. of Health

Computer Skills & Software Proficiencies

<i>Organization & Productivity</i>		<i>Coding</i>	
- Jupyter Notebooks	intermediate	- MATLAB	basic
- GitHub	basic-int.	- Python3	intermediate
- Mathematica Notebooks	basic	- ArcGIS/QGIS	basic-int.
- Distance Learning & Meetings (Zoom, Blackboard Ultra, Slack, Discord, Canvas)	int.-proficient	- Linux	intermediate
		- R	intermediate
- Adobe Illustrator	proficient	- GMT	basic
- Microsoft Office	proficient	- Seismology software and services (SAC, ObsPy, IRIS web tools)	basic-int.

References

Dr. Ginny Catania
 Professor of Geological Sciences & Research Associate
 University of Texas Institute for Geophysics
GCatania@ig.utexas.edu

Dr. Daniel Trugman
 Assistant Professor of Geological Sciences & Engineering
 Nevada Seismological Laboratory
 University of Nevada, Reno
DTrugman@unr.edu

Dr. Audrey Huerta
 Program Director, Tectonics
 Earth Sciences Division
 National Science Foundation
ahuerta@nsf.gov