

Tanner Johnson

3700 Harmon Ave. Austin, TX 78705
715-638-6720 | Tannerscott.j@gmail.com | [LinkedIn](#)

EDUCATION

PhD Student, Geosciences

August 2024 - Present

The University of Texas - Austin, Texas, GPA 4.00

Research Interests: Wildfires, climate extremes, geomorphology, post-fire debris flows, machine learning, hydraulic runoff, geologic hazards

Advisors: Danielle Touma & Joel Johnson

B.S, Geosciences: Emphasis in Earth, Ocean, and Climate

Earned May 2024

The University of Arizona, Tucson, Arizona, GPA 3.92

HONORS AND AWARDS

“Best Undergraduate Talk” *Geodaze 2024*

Dean’s List with Distinction *May 2023, May 2022, May 2021*

Dean’s List *December 2020*

Honorable Mention *December 2021, December 2022*

Academic Year Highest Academic Distinction *May 2022*

Academic Year Academic Distinction *May 2023, May 2021*

RESEARCH EXPERIENCE

Undergraduate Research Assistant

August 2021 – Present

Department of Geosciences, University of Arizona

- Performs research underneath Dr. Luke McGuire, focusing on post-wildfire sediment transport, debris flows, soil/landscape evolution, and other related geologic hazards.
- Used HEC-HMS to predict watershed runoff post-wildfire.
- Conducted senior capstone project that focuses on modeling predicted debris flows post-wildfire in Flagstaff, Arizona by using ProDF software
- Analyzed predicted debris flow area inundated under future climate change projections utilizing ProDF software

International Research Experience for Students (IRES) Participant

July 2023 – August 2023

University of Costa Rica, Georgia State University, Costa Rica

- Studied the Guanacaste Forearc Sliver using INSAR to plot the ground deformations over the course of two years.
- Conducted field work to build seismic sensors to measure ground displacement.
- Learned about Costa Rican culture and various geologic hazards in the country.
- Presented a research poster at AGU in December 2023.

International Research Experience for Students (IRES) Participant

May 2023 – June 2023

University of Georgia, University of Kentucky, Morocco

- Dryland Recharge Assessment in Morocco (DReAM) Program: A Multi-Faceted Approach for Understanding Hydrologic Controls on Transmission Losses in Dryland Environments
- Studied the influence of water in the Moroccan Culture
- Conducted hydrological field work throughout the country of Morocco.
- Produced a group project highlighting the hydrologic change from source to sink of Moroccan drylands

Curriculum Vitae

CONFERENCE PRESENTATIONS

Research Talks

Johnson, T., McGuire, L., Gorr, A. (March 2024) “*Prefire Assessment of Postfire Debris Flow Hazards near Flagstaff, Arizona: Insights from Debris Flow Runout Modeling and Climate Change Implications.*” Poster session presented at the University of Arizona GEODAZE, Tucson, AZ. Awarded “*Best Undergraduate Talk*”

Poster Presentations

Johnson, T., Touma, D., Johnson, J. (December 2024 & February 2025) “*Assessing Drivers and Impacts of Wildfire Severity in Western North American Mountain Ranges*” Presented at poster sessions during American Geophysical Union (AGU) 2024, Washington D.C. & JSG Symposium, Austin, TX.

Johnson, T., Araya, M., Hidalgo, P. (December 2023) “*Unveiling the Guanacaste Tectonic Sliver Boundaries Near Miravalles Volcano.*” Presented at poster session during American Geophysical Union (AGU) 2023, San Francisco, CA

Johnson, T., Martinez, J., McGuire, L. (April 2023) “*Modeling the flash flood potential changes over time following the Contreras Fire with the HEC-HMS software.*” Poster session presented at the University of Arizona GEODAZE, Tucson, AZ

RELEVANT COURSEWORK

Land Atmosphere Interaction Dynamics	Physical Hydrology
Geomorphology	Environmental Fluid Dynamics
Earth Surface Processes	Geographic Information Systems (Nat+Soc Sciences)
Geologic Hazards	Ocean Sciences
Principles of Stratigraphy and Sedimentation	Mineralogy
The History of Earth’s Climate	Introduction to Geophysics
Python in Geosciences	Global Change
Introduction to Climate Dynamics	Physical Geology
Structural Geology	Paleontology

STUDENT LEADERSHIP ROLES

Co-Social Chair, Homecoming Queens Selections, Evening of Excellence Chair *April 2023 – Present*
Bobcats Senior Honorary, University of Arizona

- Dedicated to preserve the unity and welfare of the University of Arizona
- Selected as one of the 13 seniors from the entire senior class.
- Assists with planning university wide homecoming, homecoming queens’ selections, meet with alumni and faculty of the university.
- Planned Evening of Excellence to recognize over 35 clubs on campus, and 240 students represented. Created awards, booked a venue (Bear Down Gymnasium), and created the registration process

Chapter President, Co-Founder *October 2022 – Present*
Epsilon Eta, Tau Chapter: Pre-Professional Environmental Fraternity.

- Communicated with other chapters around the nation to implement our own charter, bank account, and a club constitution.
- Leads weekly chapter meetings and assists with new member recruitment process. Oversees activity of over 60 active members and the six vice presidents.
- Participates in environmental clean ups, professional development events, coordinated and planned a career panel, created an opportunity for environmental students to network and build community.

Co-Director of Membership *December 2021-December 2022*
Arizona Ambassadors

- Created and revised club applications, ran a lengthy interview process, selected a new class of over 40

Curriculum Vitae

tour guides each semester of term, trained new members of the span of four weeks, and gives weekly campus tours to incoming students

Physical Geology Preceptor

University of Arizona Geosciences

- Served as a preceptor for the Physical Geology, GEOS 251 lab
- Assisted with teaching a variety of lab material including seismological methods, mineral identification, cartography, rock identification, and more.
- Fostered a relationship with the teaching assistant and students in the class.