

Daniel D. Mongovin

Ph.D. Aspirant, University of Kansas
Madison & Lila Self Graduate Fellow
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Research Interests: Addressing structural and tectonic questions with a focus on landscape evolution and sediment source, transport, and storage utilizing geomorphology, structural geology, geophysical, remote sensing and geodetic techniques

Strengths: Communication skills, peer mentorship, extensive field experience, expertise in structure, tectonics, and geomorphology with skills in sedimentology/stratigraphy; quantitative, coding, and data science skills with aptitude in related software, i.e., python, MATLAB, QGIS, ArcGIS, Agisoft

Desired Position: I am interested in future employment where I can (1) implement expertise in structure and tectonics, (2) explore interests in sedimentology and stratigraphy, (3) engage with a strong community of peers, and (4) engage with, mentor, and advise the future generation of geoscientists

Education

Ph.D. Aspirant, Geological Sciences, 2022 – 2027 (Expected), 4.0 GPA
University of Kansas, Advisor: Dr. Michael H. Taylor

- **Dissertation Focus:** Understanding the crustal-scale structure of the Himalayan Orogen through the study of tectonic uplift, fluvial incision, landscape evolution, and river morphodynamics
- **Madison & Lila Self Graduate Fellowship:** Highly competitive fellowship with the mission to provide support and professional development for exceptional graduate student leaders who demonstrate significant promise; \$200,000/four years

M.Sc., Geological Sciences, Haworth Honors Student, 2020 – 2022, 4.0 GPA
University of Kansas, Advisor: Dr. Michael H. Taylor

- **Thesis Focus:** (1) Quaternary activity and neotectonics of the Tumalo Fault, Central Oregon, and (2) Neotectonics of magma-poor continental rifting of the Albertine Graben, East African Rift

B.Sc., Geological Sciences, honors, 2014 – 2018, 3.67 GPA
Central Washington University, Advisor: Dr. Jeff Lee

- **Undergraduate research:** GIS-based tectonic geomorphology of the Borah Peak Fault, Idaho

Relevant Experience

USGS Geologist, GS-5, U.S. Geological Survey, Moffett Field, CA, Nov. 2019 – Aug. 2020

- Terrestrial LiDAR data acquisition and processing, earthquake emergency response, and paleoseismic investigations of active fault zones in California

NAGT Intern, U.S. Geological Survey, Menlo Park, CA, July 2019 – Nov. 2019
Mentors: Dr. Belle Philibosian, Dr. Stephen DeLong, Suzanne Hecker

- NAGT/USGS Cooperative Summer Field Training Program supervised by the USGS Earthquake Science Center tasked with field and remote-sensing-based geological and neotectonic mapping

Teaching Experience

Graduate Teaching Assistant, University of Kansas, 2020-2022

Instructor: Optical Mineralogy, Petrology Lab, Intro to Geology Lab

Teaching Assistant: Intro to Geology Lecture, Field Camp

Undergraduate Teaching Assistant, Central Washington University, 2016-2018

Teaching Assistant: Intro to Geology Lab, Sedimentology and Stratigraphy, Field Camp

Notable Field Experience

- Colorado Plateau – Tectonics, Basin Development, Fluvial Architecture
- Nepal Himalayas – Field Research, Sample Collection, and Geologic Traverse
- East African Rift, Uganda – Field Mapping, Sample Collection, Field School Instructor
- Central Oregon – Fault Mapping, Tectonic & Fluvial Geomorphology, Sample Collection
- Northern and Southern California – Fault Mapping, Paleoseismic Trenching, Geodetic Surveys

Research Funding and Scholarships

- Merriam Graduate Student Research Award, KU – \$2,000 – Summer 2024
- D. A. McGee Scholarship, KU – \$3,500 – Summer 2022
- Kansas Geological Foundation Scholarship – \$2,000 – Spring 2022
- StraboSpot2 Super Tester, NSF Grant – \$2,000 – Summer 2021
- Robert D. Bentley Scholarship, CWU – \$10,000 – 2017-2018

Awards and Honors

- Merriam Graduate Student Research Award, KU Dept. of Geology – 2024
- Haworth Erasmus Honors Award, KU Dept. of Geology – 2022
- Nomination for NAGT/USGS Internship – Summer 2018
- College of the Science Student Achievement Award, CWU – Spring 2018
- Spirit of the Department Award, CWU Dept. of Geology – Spring 2018
- Certificate of Excellence, CWU SOURCE – Spring, 2017
- Barry M. Goldwater Scholarship Nominee, CWU College of the Sciences – Fall 2017
- Dean's List, ten quarters, CWU College of the Sciences – 2015-2018

Selected Academic Service, Memberships, and Volunteer Work

- Invited Instructor, Makerere University, Uganda Field School – Summer 2024
- Invited Instructor, University of Houston 2024 FIELDGeo Field Trip – Winter 2024
- Chair, Representative Committee, KU Geol. Graduate Student Organization – 2023-2024
- Ph.D. Student Representative/Liason at Faculty Meetings, KU Dept. of Geology – 2023-2024
- Wilderness First Aid Certified – 2016-2023
- Inaugural President & Founding Member, KU Geol. Graduate Student Organization – 2022-2023
- Secretary, Association for Women in the Geosciences Osage Chapter, KU – 2021-2022
- Member/Discussion Leader, Unlearning Racism in the Geosciences, KU – 2020-2021
- USGS Early Career Scientists Network – 2019-2020
- Executive Board Member, CWU Student Academic Senate – 2016-2018
- Voting Student Representative, CWU Board of Academic Appeals – 2017-2018
- Vice President, Assoc. of Engineering & Environmental Geologists, CWU Section – 2017-18
- Community Service, Bike Repair for Children's Charity – 2016-2018

Publications

Mongovin, D.D., Taylor, M.H., Rittenour, T.M., Hoxey, A.K.R., McLean, N., Bemis, S.P., Murphy, M.A. (in review). *Strike-slip faulting in the Cascadia Backarc: Documentation of Quaternary Dextral Slip on the Tumalo Fault, Central Oregon, and Implications for Regional Kinematics* (In Review, Geosphere, Geological Society of America).

Mongovin, D.D. and Philiposian, B. (2021). *Creep on the Sargent Fault over the Past 50 Years from Alignment Arrays with Implications for Slip Transfer Between the Calaveras and San Andreas Faults* (Article, Bulletin of the Seismological Society of America).

<https://doi.org/10.1785/0120210041>

Ponti, D.J. et al. (2020). *Documentation of surface fault rupture and ground deformation features produced by the Ridgecrest M6.4 and M7.1 earthquake sequence* (Research Article, Seismological Research Letters). <https://doi.org/10.1785/0220190322>

Catchings, D. et al. (2020). *Nodal Seismograph Recordings of the 2019 Ridgecrest Earthquake Sequence* (Research Article, Seismological Research Letters).

<https://doi.org/10.1785/0220200203>

Selected Abstracts

Mongovin, D.D., Taylor, M.H., Forte, A.M., Murphy, M.A., Orme, D.A., Hoxey, A.K.R., Bhandari, B., Grom, V. (2023). *Stranded Gravels, Fluvial Geomorphology, and Neotectonics of the Kali Gandaki River, Himalayas, Central Nepal*, 2023 AGU Fall Meeting

Taylor, M.H., **Mongovin, D.D.**, Forte, A., Laskowski, A., Ding, L. (2022). *Active Surface Uplift of the Gangdese Range and Evidence for Associated Drainage Network Reorganization, Southern Tibet*, 35th Himalaya-Karakorum-Tibet Workshop, Pokhara, Nepal

Mongovin, D.D., Taylor, M.H., Bemis, S.P., Rittenour, T., McLean, N., Murphy, M., Hoxey, A.K.R. (2022). *Strike-Slip Faulting in the Cascadia Backarc: Neotectonic Mapping and IRSL Geochronology Reveal Normal-Oblique Dextral Slip Rates Along the Active Tumalo Fault, Sisters Fault Zone, Central Oregon, USA*, GSA Abstracts with Programs, v. 50, no. 5, <https://doi.org/10.1130/abs/2022AM-378044>

Mongovin, D.D., Mwongerya, H., Taylor, M.H., Stamps, D.S., Atekwana, E.A., van der Lee, S., Atekwana, E.A., Katumwehe, A.B., Evans, R.L., Kolawole, F., Tugume, F. (2021). *Neotectonics of the Rift-Bounding Toro-Bunyoro Fault, Albertine Graben (Uganda), Western Branch of the East African Rift System*, 2021 AGU Fall Meeting

Mongovin, D.D., Philiposian, B. (2020). *Creep on the Sargent Fault Over the Past 50 Years from Alignment Arrays and Implications for Slip Transfer Between the Calaveras and San Andreas Faults*, 2020 AGU Fall Meeting, T003-0007

Hecker, S., Elliot, A.J., Sickler, R.R., Philiposian, B., Pickering, A., **Mongovin D.D.**, Johns, W., Huddleston, G. (2020). *Results from the Chalk Hill Paleoseismic Site, Northern Rodgers Creek Fault, San Francisco Bay Region*, 2020 AGU Fall Meeting, S31F-0476

Catchings, R. D., Goldman, M. R., Chan, J., Allam, A. A., Steidl, J. H., Ben-Zion, Y., Criley, C., Ma, Z., Langermann, D., McEvelly, A. T., & **Mongovin, D. D.** (2019). *Three-Component Nodal Array Aftershock Deployments for the 2019 Ridgecrest Earthquake Sequence*, 2019 SCEC Annual Meeting. SCEC Contribution 9333

Mongovin, D.D., Lee, J. (2017). *Calculating Vertical Offset of the Borah Peak Fault Scarp Using Contemporary Digital Methods*, 2017 GSA Annual Meeting