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EDUCATION

- 2016 **Ph.D. Candidate, Stanford University**, Dept. of Geological Sciences
Thesis: Sedimentology, seismic geomorphology, and provenance investigations of deep-water deposits:
 Taranaki Basin, New Zealand
Advisor: Dr. Stephan Graham
Cumulative GPA: 4.0
- 2009 **B.A., University of California - Santa Cruz**, Dept. of Earth and Planetary Science
Thesis: Paleomagnetism of the Middle Cretaceous Xinminpu Group, West Hei Shan, Western China:
 Implications for the long-term slip history of the Altyn Tagh Fault
Advisor: Dr. Robert Coe
Cumulative GPA: 3.87

EXPERIENCE

- 2016 **Post-doctoral Research Associate, Colorado School of Mines**, Golden, CO
Chevron Center of Research Excellence, Department of Geology and Geological Engineering
Investigating scaling relationships among morphometric elements of modern submarine channels and ancient submarine channel deposits, and possible associations with regional forcings.
- 2014 **Intern, Shell Oil**, Houston, TX
Clastics Research Team
Interpreted 3D seismic reflection data to investigate sediment transport processes on the continental shelf and slope, for improved reservoir prediction and understanding of stratigraphic traps and seals.
- 2014 **Teaching Assistant, Stanford University**, Stanford, CA
Reflection Seismology Interpretation, graduate course
Assessed students' 2D and 3D seismic interpretations; held office hours for helping students understand concepts; assisted instructors with teaching core concepts as needed.
- 2013 **Teaching Assistant, Stanford University**, Stanford, CA
Sedimentary Basins, graduate course
Helped organize and lead field trip-based examination; generated written tutorials for use of software in course assignments; delivered one week of lectures; assisted students with understanding material.
- 2012 **Teaching Assistant, Stanford University**, Stanford, CA
Introduction to Geology: Dynamic Earth, undergraduate course
Led weekly laboratory session for ~20 undergraduates (majors and non-majors); graded assignments and worked with other TAs to improve handouts; helped plan and organize class field trip.
- 2012 **Intern, Shell Oil**, Houston, TX
Clastics Research Team
Documented submarine channels in 3D seismic reflection data for comparison with fluvial channels, toward developing analogs for understanding submarine sediment transport and deposition.
- 2011 **Laboratory Technician, UC Santa Cruz**, Santa Cruz, CA

- Organized and maintained field and teaching supplies; catalogued maps and other collections.
- 2011 **Course Assistant, UC Santa Cruz, Santa Cruz, CA**
Introduction to Field Methods, undergraduate course
Led weekly three-hour lab sections, including presentation of new concepts; helped lead five field trips, including overnight trips; graded weekly assignments and final mapping project and report.
- 2010 **Course Assistant, UC Santa Cruz, Santa Cruz, CA**
Introduction to Field Methods, undergraduate course
See description above.
- 2010 **Laboratory Assistant, Applied Paleomagnetism, Inc., Santa Cruz, CA**
Assisted with sampling core and analyzing paleomagnetic signatures for orienting fractures in core.
- 2009 **Geologist Intern, U.S. Geological Survey, Lakewood, CO**
Assisted with data collection, field research, and subsurface data management for investigations of groundwater storage and availability in California and Nevada.
- 2008 **Instructional Assistant, UC Santa Cruz, Santa Cruz, CA**
Introduction to Geology: California Geology, undergraduate course
As undergraduate assistant, led weekly one-hour lab sections and graded assignments for non-majors.

VOLUNTEER & SERVICE

- 2015 Co-Leader & Developer, Science Teaching through Art, Stanford University
- 2014 Workshop Participant & Presenter, Science Teaching through Art, Stanford University
- 2014 Sedimentary Research Group Leader, Stanford University
- 2014 Whareorino Elementary School outreach and field trip, New Zealand
- 2013 Whareorino Elementary School outreach, New Zealand
- 2011 Volunteer Judge, Santa Cruz County Science Fair, Watsonville, CA
- 2008 Geology Booth Volunteer, Sally Ride Science Festival, NASA-Ames, Mountain View, CA

AWARDS & HONORS

- 2015 Outstanding Student Paper Award, American Geophysical Union
- 2015 Nominated for Graduate Voice and Influence Program, Stanford University
- 2014 A.I. Levorsen Research Grant, Stanford University
- 2013 A.I. Levorsen Research Grant, Stanford University
- 2009 Magna Cum Laude, UC Santa Cruz
University Honors, UC Santa Cruz
Highest Honors in the Major, UC Santa Cruz
Stevenson College Honors, UC Santa Cruz
Phi Beta Kappa Membership
- 2008 Kathryn D. Sullivan Scholarship, UC Santa Cruz

PUBLICATIONS

- Shumaker, L.E., Jobe, Z.R., and Graham, S.A., 2016, Evolution of submarine gullies on a prograding slope: Insights from 3D seismic reflection data: Marine Geology, in press.**

- Sharman, G.R., Graham, S.A., Masalimova, L., **Shumaker, L.E.**, and King, P.R., 2015, Spatial patterns of deformation and paleoslope estimation within the marginal and central portions of a basin-floor mass-transport deposit, Taranaki Basin, New Zealand: *Geosphere*, v. 11, no. 2, pgs 1-41.
- Sweetkind, D.S., Bova, S.C., Langenheim, V.E., **Shumaker, L.E.**, and Scheirer, D.S., 2013, Digital tabulation of stratigraphic data from oil and gas wells in Cuyama Valley and surrounding areas, central California: U.S. Geological Survey Open-File Report 2013-1084, 44 p., <http://pubs.usgs.gov/of/2013/1084/>.
- Sweetkind, D.S., Tennyson, M.E., Langenheim, V.E., and **Shumaker, L.E.**, 2010, Digital tabulation of stratigraphic data from oil and gas wells in the Santa Maria Basin and surrounding areas, central California coast: U.S. Geological Survey Open-File Report 2010-1129, 11 p.

PRESENTATIONS

- Shumaker, L.E.**, Jobe, Z.R., and Graham, S.A., 2015, Constraining the formation of submarine gullies on continental slopes: Abstract EP13A-0930, AGU Fall Meeting, San Francisco, Calif., 14-18 Dec.
- *Dafov, L., Nieminski, N., **Shumaker, L.E.**, and Graham, S.A., 2015, Detrital zircon provenance of Neogene forearc sub-basin sandstones: East Coast Basin of New Zealand: Abstract V23B-3169, AGU Fall Meeting, San Francisco, Calif., 14-18 Dec.
- **Jackson, C., **Shumaker, L.E.**, Johnstone, S.A., and Graham, S.A., 2015, Comparison of submarine gully morphologies in passive and active margin settings: Abstract ED41A-0832, AGU Fall Meeting, San Francisco, Calif., 14-18 Dec.
- Hilley, G.E., Aron, F., Baden, C.W., Castillo, C.M., Johnstone, S.A., Nevitt, J.M., McHargue, T.R., Paull, C.K., Sare, R.M., **Shumaker, L.E.**, and Young, H.H., 2015, Oceanic transform fault-zone geomorphology in the Gulf of California from high-resolution bathymetric data: Abstract T42A-08, AGU Fall Meeting, San Francisco, Calif., 14-18 Dec.
- Shumaker, L.E.**, and Jobe, Z.R., 2014, Evolution of submarine gullies on a prograding slope: Insights from 3D seismic reflection data: Abstract EP13C-3532, AGU Fall Meeting, San Francisco, Calif., 15-19 Dec.
- Shumaker, L.E.** and Graham, S.A., 2014, Miocene deep-water deposition by a submarine volcanic arc: Mohakatino Formation, Taranaki Basin, New Zealand: Abstract T238-340, GSA Annual Meeting and Exposition, Vancouver, B.C., Canada, 19-22 Oct.
- Shumaker, L.E.**, Lippert, P.C., Darby, B.J., Ritts, B.D., and Coe, R.S., 2010, Post-Cretaceous sinistral transpression in southwest Alaska: Structural and paleomagnetic insights into the long-term slip history of the Altyn Tagh Fault: Abstract T43B-2191, AGU Fall Meeting, San Francisco, Calif., 13-17 Dec.
- Sweetkind, D.S., Langenheim, V.E., and **Shumaker, L.E.**, 2010, Configuration and lithology of Mesozoic basement beneath the Santa Maria basin, CA from analysis of borehole data: *Geological Society of America Abstracts with Programs*, v. 42, no. 4, p. 79.
- Taylor, E.M., Sweetkind, D.S., Garcia, A.G., and **Shumaker, L.E.**, 2010, Terrain analysis and geologic field investigations used to constrain drainage evolution and basin-filling history within and near the northern Salinas Valley groundwater basin, Central California Coast Range: *Geological Society of America Abstracts with Programs*, v. 42, no. 4, p. 79.
- Sweetkind, D.S., Faunt, C.C., Hanson, R.T., Taylor, E.M., Everett, R., and **Shumaker, L.E.**, 2009, Developing a 3-D subsurface map to evaluate water availability in Cuyama Valley, CA: *Geological Society of America Abstracts with Programs*, v. 41, no. 7, p. 280, Portland GSA Annual Meeting, 18-21 Oct.

*Denotes undergraduate student mentee.

**Denotes high school student mentee.

