

BRIAN K. HORTON

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Education

1998 Ph.D., Geosciences, University of Arizona
 1994 M.S., Earth Sciences, Montana State University
 1992 B.S. (with distinction), Geology, University of New Mexico

Professional Appointments

2020 - present J. Nalle Gregory Chair in Sedimentary Geology, University of Texas at Austin
 2012 - present Professor, University of Texas at Austin
 2021 Visiting Professor, University of Chile, Santiago, Chile
 2014 - 2020 Alexander Deussen Professor of Energy Resources, University of Texas at Austin
 2016 - 2017 Visiting Professor, Yachay Tech University, School of Geological Sciences, Urcuquí, Ecuador
 2006 - 2012 Associate Professor, University of Texas at Austin
 2001 - 2006 Assistant Professor, University of California Los Angeles (tenured, 2006)
 1999 - 2001 Assistant Professor, Louisiana State University
 1998 - 1999 Postdoctoral Research Fellow, University of California Los Angeles
 1994 - 1998 Graduate Research Fellow and Teaching Assistant, University of Arizona
 1996 Exploration Geologist Intern, British Petroleum Exploration, Anchorage, Alaska
 1995 Exploration Geologist Intern, Amoco Production Company, Houston, Texas
 1992 - 1994 Graduate Research Fellow and Teaching Assistant, Montana State University
 1990 - 1992 Laboratory and Field Assistant (Hydrology, Paleomagnetism), University of New Mexico

Honors and Awards

2022 Best Paper Award, Society of Exploration Geophysicists: Timing of hydrocarbon entrapment in the eastern foothills of the Eastern Cordillera of Colombia: Sánchez et al., Interpretation, v. 9.
 2021 Carolyn G. and G. Moses Knebel Teaching Award, Department of Geological Sciences, UT: Undergraduate teaching excellence (GEO 420K Introduction to Field & Stratigraphic Methods)
 2019 University of Arizona Geosciences Distinguished Alumni Award
 2019 Outstanding Researcher, Institute for Geophysics, UT
 2018 William R. Dickinson Medal (Award for Excellence in Sedimentary Geology by a Mid-Career Scientist), SEPM Society for Sedimentary Geology
 2017 Outstanding Educator, Jackson School of Geosciences, UT
 2017 Director's Circle of Excellence, Institute for Geophysics, UT
 2016 - 2017 Faculty Research Assignment (sabbatical research fellowship), UT
 2013 Outstanding Researcher, Institute for Geophysics, UT
 2013 Director's Circle of Excellence, Institute for Geophysics, UT
 2012 - 2013 Faculty Research Assignment (sabbatical research fellowship), UT
 2012 Director's Circle of Excellence, Institute for Geophysics, UT
 2011 Outstanding Researcher, Jackson School of Geosciences, UT
 2011 Director's Circle of Excellence, Institute for Geophysics, UT
 2010 Exceptional Reviewer, *Lithosphere*
 2007 Exceptional Reviewer, *Geological Society of America Bulletin*
 2006 - 2007 Humboldt Research Fellowship, Alexander von Humboldt Foundation, Germany
 2005 Fellow, Geological Society of America
 2004 Young Scientist Award, Donath Medal, Geological Society of America
 2004 Faculty Career Development Award, UCLA
 1998 - 1999 NSF Postdoctoral Research Fellowship
 1998 Outstanding Teaching Assistant, University of Arizona Department of Geosciences
 1998 Award for Meritorious Performance in Teaching, University of Arizona Foundation
 1993 - 1996 NSF Graduate Research Fellowship

1993	Geological Society of America Outstanding Student Research Award
1992 - 1993	Presidential Graduate Scholarship, Montana State University
1992	NSF Graduate Research Fellowship, Honorable Mention
1992	Albuquerque Petroleum Association Victor Salazar Memorial Scholarship
1992	Estwing Outstanding Geology Student Award, University of New Mexico
1992	Stuart A. Northrop Outstanding Geology Senior Award, University of New Mexico
1991	Sherman A. Wengerd Outstanding Geology Junior Award, University of New Mexico
1990	J. Paul Fitzsimmons Outstanding Geology Sophomore Award, University of New Mexico
1988 - 1992	Excel Scholarship (merit-based full scholarship), University of New Mexico

Research Interests

Tectonic signatures in the stratigraphic record
 Evolution of contractional orogenic belts and foreland, hinterland, and intermontane basins
 Initial mountain building and plateau construction in the Andes, Tibet, and Middle East
 Sedimentary geochronology, provenance and routing systems
 Influence of tectonics and climate on erosion, sedimentation, and basin evolution
 Integration of geochronology, thermochronology, and paleoaltimetry with basin analysis
 Physical sedimentology of modern and ancient fluvial and alluvial-fan depositional systems
www.twitter.com/AndesTectonics
www.ResearcherID.com/rid/A-1804-2009
<https://publons.com/researcher/2946950/brian-k-horton/>
<https://scholar.google.com/citations?user=FcXBSz4AAAAJ&hl=en>

Research Platforms

- UT: https://www.jsg.utexas.edu/researcher/brian_horton
 - Twitter: www.twitter.com/AndesTectonics
 - Researcher ID: www.ResearcherID.com/rid/A-1804-2009
 - Research Gate: www.researchgate.net/profile/Brian_Horton2
 - Google Scholar: <https://scholar.google.com/citations?user=FcXBSz4AAAAJ&hl=en>

Research Grants

Total: 42 awards: 26 National Science Foundation (NSF), 1 American Chemical Society (Petroleum Research Fund), 2 National Geographic Society, 1 NASA, 1 Alexander von Humboldt Foundation, 1 International Ocean Discovery Program, 1 International Continental Scientific Drilling Program, 9 petroleum industry research grants: \$10,215,267 to PI institution (total to all institutions: \$25,937,968) (1998-present)

- [42] NSF Tectonics EAR 1946700. *Collaborative Research: Internal and external drivers of orogenic episodicity in the Ecuadorian Andes.*
 PI (UT), with co-PI Jay Chapman (U. Wyoming).
 \$232,247 (\$468,923 total) [2020 – 2023]
- [41] NSF Tectonics EAR 191854. *Shortening, extension, and drainage reorganization in the Andean fold-thrust belt and broken foreland basin of northern Patagonia, Argentina.*
 Sole PI (UT).
 \$440,314 [2019 – 2022]
- [40] NSF Frontier Research in Earth Sciences (FRES) Program EAR 1925898. *Collaborative Research: Consequences of flat slab subduction on the chemical, structural, and dynamic evolution of continental lithosphere.*
 Co-PI (UT), with PI Lara Wagner (Carnegie Institution for Science), co-PI Thorsten Becker (UT), co-PI Christy Till (Arizona State U.).
 \$1,265,890 (\$2,698,000 total) [2019 - 2023]
- [39] IODP (International Ocean Discovery Program). *Expedition 387 (Amazon Margin)*
 Participant (Sedimentologist), with Chief Scientists Paul Baker (Duke U.), Cleverson Silva (Federal U. Fluminense, Brazil)
 \$103,082 [2019 - 2021]
- [38] NSF Integrated Earth Systems (IES). *Collaborative Research: Trans-Amazon Drilling Project.*
 Co-PI (UT), with PI Paul Baker (Duke U.), 4 others.

- \$132,343 (\$3,112,173 total) [2018 – 2021]
- [37] International Continental Scientific Drilling Program (ICDP). *Trans-Amazon Drilling Project*.
Co-PI (UT), with PI Paul Baker (Duke U.), 16 others.
\$1,500,00 total [2017 – 2019]
- [36] NSF Frontiers in Earth System Dynamics (FESD) EAR 1338694. *The dynamics of mountains, landscapes and climate in the distribution and generation of biodiversity of the Amazon/Andean forest*.
PI (UT), with PI Paul Baker (Duke U.), 3 others.
\$112,839 [2017 – 2020]
- [35] Andes Petroleum Ecuador Ltd. UTA18-000207. *Provenance, geochronology and geological synthesis of the M1 and basal Tena sandstones, Oriente Basin, Ecuador*.
Subcontractor (UT), with PI Ron Steel (UT).
\$375,445 [2018 – 2020]
- [34] NASA Biodiversity Program 15-BIODIV15-0013. *Mapping linkages between geophysical and biological diversity across space and time in the Andes, Amazon, and Chocó of Perú, Ecuador, and Colombia*.
Co-PI (UT), with PI Sherilyn Fritz (U. Nebraska), 6 others.
\$60,170 total [2016 – 2018]
- [33] National Geographic Society Research and Exploration Grants Program 990916. *Continental-scale drainage reversal of the Amazon River*.
Sole PI (UT).
\$20,700 [2016 – 2017]
- [32] NSF Frontiers in Earth System Dynamics (FESD) EAR 1338694. *The dynamics of mountains, landscapes and climate in the distribution and generation of biodiversity of the Amazon/Andean forest*.
PI (UT), with PI Paul Baker (Duke U.), 3 others.
\$203,443 [2015 – 2018]
- [31] ExxonMobil, UTA12-000741. *Deformational and thermal history of the Iranian Zagros fold-thrust belt (thermochronometric analysis of legacy samples)*.
Co-PI (UT), with PI Daniel Stockli (UT).
\$109,821 [2015 – 2016]
- [30] Petro Matad (Ulaanbaatar, Mongolia). *Field work, petrographic studies, and reservoir characterization of blocks IV and V, central Mongolia*.
Subcontractor (UT)
\$22,425 [2015 – 2016]
- [29] National Geographic Society. *The Pampean desert: reconstructing the largest Quaternary sand sea in South America*.
Project Member (UT), with PI: Edgardo Latrubesse (UT).
\$20,000 [2015 – 2016]
- [28] NSF Tectonics EAR 1450976. *Exhumation history of the Indian Lesser Himalaya: Discriminating tectonic models with implications for the Neogene isotopic composition of seawater*.
Co-PI (UT), with PI N. Ryan McKenzie (Yale U.), co-PI Daniel Stockli (UT).
\$361,772 [2015 – 2018]
- [27] NSF Tectonics EAR 1348031. *Rapid Miocene thrust propagation and wholesale basin partitioning along the central and southern Andes, Argentina*.
PI (UT), with co-PI N. Ryan McKenzie (Yale U.).
\$298,480 [2014 – 2017]
- [26] Statoil, subcontract UT 201102398. *Exploring source-to-sink linkages between Laramide basins and the Gulf of Mexico*.
PI (UT), with graduate fellow Meredith Bush (UT).
\$78,327 [2014 – 2015]
- [25] NSF Frontiers in Earth System Dynamics (FESD) EAR 1338694. *The dynamics of mountains, landscapes and climate in the distribution and generation of biodiversity of the Amazon/Andean forest*.
Co-PI (UT), with PI Paul Baker (Duke U.), 3 others.
\$343,689 (\$2,440,000 total) [2013 – 2015]
- [24] NSF Tectonics EAR 1250512. *Thrust belt response to rapid surface uplift of the Altiplano: A field test of Cordilleran cyclicity in southern Bolivia*.
PI (UT), with co-PI Sean Long (U. Nevada Reno).
\$130,499 [2013 – 2016]

- [23] Pacific Rubiales Energy, UT 201301464–001. *Structural and hydrologic evaluation, Andean Cordillera and foreland basin, Colombia*.
Subcontractor (UT), with PI Brad Wolaver (Bureau of Economic Geology, UT).
\$559,086 [2013 – 2015]
- [22] ExxonMobil, UTA12-000741. *Depositional and deformational history of the Zagros fold-thrust belt and foreland basin*.
PI (UT), with co-PI Daniel Stockli (UT).
\$415,000 (\$845,409 total) [2012 – 2014]
- [21] NSF Sedimentary Geology and Paleobiology EAR 0958704. *Late Cenozoic vertebrate paleontology and paleoenvironments of the Tibetan Plateau (China)*.
Subcontractor (UT), with PI Xiaoming Wang (Los Angeles County Museum of Natural History).
\$11,754 [2012 – 2013]
- [20] Ecopetrol (Instituto Colombiano del Petróleo), UTA11-000356. *New perspectives on the tectonic and paleoelevation history of the northern Andes*.
PI (UT), with co-PI Tim Shanahan (UT).
\$180,831 [2011 – 2012]
- [19] NSF Tectonics EAR 1019857. *Evaluating along-strike variations in surface uplift of the Andes: Constraints from molecular paleoaltimetry in the Eastern Cordillera of Colombia*.
PI (UT), with co-PIs Tim Shanahan, Joel Saylor (UT).
\$246,578 [2010 – 2013]
- [18] NSF Continental Dynamics EAR 1009845. *St. Elias Erosion-tectonics Project (STEEP)*.
Co-PI (UT), with PI Terry Pavlis (UTEP), co-PI Sean Gulick (UT), 12 others.
\$325,940 (\$1,390,736 total) [2010 – 2013]
- [17] Petro Matad (Ulaanbaatar, Mongolia). *Field work, petrographic studies, and reservoir characterization of blocks IV and V, central Mongolia*.
Subcontractor (UT)
\$47,500 [2010 – 2012]
- [16] NSF Continental Dynamics EAR 0908518. *CAUGHT: Central Andean Uplift and the Geodynamics of High Topography*.
Co-PI (UT), with PI Carmala Garzzone (U. Rochester), 8 others.
\$326,327 (\$2,545,969 total) [2009 – 2013]
- [15] Ecopetrol (Instituto Colombiano del Petróleo), UTA08-711. *Basin evolution and structural history of a regional transect through the Middle Magdalena Valley, Eastern Cordillera, and western Llanos basin of Colombia*.
Sole PI (UT).
\$1,500,000 [2008 – 2010]
- [14] NSF Tectonics EAR 0809425. *Development of extensional systems in regions of hot, thick crust: Insight from Tibet*.
Co-PI (UT), with PI Michael Taylor (U. Kansas), co-PI Paul Kapp (U. Arizona).
\$75,163 (\$317,212 total) [2008 – 2010]
- [13] NSF Continental Dynamics EAR 0708105. *How is rifting exhuming the youngest HP/UHP rocks on Earth?*
Co-PI (UT), with PI Suzanne Baldwin (Syracuse U.), 8 others.
\$334,353 (\$3,659,908 total) [2007 – 2012]
- [12] NSF Tectonics EAR 0710793. *Stratigraphic signatures of orogeny: Assessing the timing of initial Andean crustal shortening*.
Co-PI (UT), with PI Peter DeCelles (U. Arizona), co-PI Barbara Carrapa (U. Wyoming).
\$128,931 (\$343,375 total) [2007 – 2010]
- [11] NSF Instrumentation and Facilities EAR 0732500. *Acquisition of a solid-state 193-nm laser-ablation system*.
Co-PI (UT), with PI William Carlson (UT), 3 others.
\$97,500 [2007 – 2008]
- [10] Alexander von Humboldt Foundation, Humboldt Research Fellowship. *Orographic barriers and climate change in the northern Puna plateau, central Andes, Argentina*.
PI (UT), with host Manfred Strecker (Universität Potsdam, Germany).
\$50,000 [2006 – 2007]
- [9] NSF Tectonics EAR 0510441. *Tectonic and climatic controls on rapid exhumation along the Altiplano-Eastern Cordillera boundary, Bolivia*.

- Sole PI (UT).
\$172,667 [2005 – 2008]
- [8] NSF Tectonics EAR 0337775. *Kinematic linkages among extrusion, fold-thrust shortening, and foreland basin evolution during early continental collision, Zagros Mountains, Iran.*
Co-PI (UCLA), with PI Gary Axen (UCLA).
\$387,621 [2004 – 2007]
- [7] NSF Tectonics EAR 0201937. *Detachment faulting and basin development in a convergent setting: The Cordillera Blanca, Peru.*
Co-PI (UCLA), with PI Brendan McNulty (California State U. Dominguez Hills).
\$94,000 (\$266,769 total) [2002 – 2004]
- [6] NSF Tectonics EAR 0106677. *Investigation of timing and strain magnitude of Late Cretaceous-Tertiary thrusting in central and northern Tibet.*
Co-PI (UCLA), with PI An Yin, co-PI T. Mark Harrison (UCLA).
\$248,466 [2001 – 2004]
- [5] American Chemical Society (Petroleum Research Fund) ACS-PRF 37207-G8. *Linking basin development and growth of continental plateaus: Controls on stratigraphic architecture in western China.*
Sole PI (UCLA).
\$25,000 [2001 – 2003]
- [4] NSF Sedimentary Geology EAR 9908003, EAR 0231543. *Paleogene sedimentary basin development in the Bolivian Altiplano and implications for initial mountain building in the central Andes.*
Sole PI (LSU, UCLA).
\$98,367 [2000 – 2002]
- [3] NSF Tectonics EAR 993222, EAR 0296176. *3-D kinematic evolution of the Charleston-Nebo salient, Sevier fold-thrust belt.*
Co-PI (LSU, UCLA), with PI Peter DeCelles, co-PI Kurt Constenius (U. Arizona).
\$48,291 (\$163,809 total) [1999 – 2003]
- [2] NSF Tectonics EAR 9804680. *Late Cretaceous-Tertiary foreland basin evolution in the Eastern Cordillera of southern Bolivia.*
Subcontractor (LSU), with PI Peter DeCelles (U. Arizona), co-PI Peter Copeland (U. Houston).
\$9,997 [1999 – 2000]
- [1] NSF Postdoctoral Fellowship EAR 9805655. *Structural-stratigraphic evolution of the Fenghuo Shan and implications for crustal thickening and uplift of the Tibetan plateau*
PI, with mentor An Yin (UCLA).
\$72,000 [1998 – 1999]

Professional Affiliations

American Geophysical Union, Geological Society of America (Fellow), Society for Sedimentary Geology (SEPM), International Association of Sedimentologists, American Association of Petroleum Geologists

Professional Activities

- 2022 Judge, Geological Society of America Annual Meeting, student presentations.
- 2022 Judge, SEPM (Society for Sedimentary Geology), student presentations.
- 2019 Editor, *Andean Tectonics*, 24 chapters, 711 p., Elsevier, Amsterdam, ISBN: 978-0-12-816009-1, B.K. Horton and A. Folguera.
- 2018 - 2019 Editorial Board, *Lithosphere*, journal published by Geological Society of America.
- 2018 Field trip co-leader, 11th South American Symposium on Isotope Geology, *Pre-Andean and Andean stratigraphy, sedimentology, and structure: Eastern Cordillera to Subandean Zone, Bolivia.*
- 2018 Judge, 7th Annual Jackson School of Geosciences Student Research Symposium, UT-Austin.
- 2017 Session co-chair, IAS International Meeting of Sedimentology, Sedimentary Basins symposium: *Interactions of Sedimentation and Tectonics.*
- 2015 Session co-chair, AGU fall meeting, Tectonophysics session: *Building the Andes: From Mantle Geodynamics to Surface Processes.*
- 2014 Session co-chair, GSA annual meeting, Topical Session: *The Geodynamics of Flat Slab Subduction and its Influence on Upper Plate Deformation, Magmatism, and Basin Evolution.* Co-convened with Jeff Benowitz and Meghan Miller.
- 2007 - present Member, Teresa Lozano Long Institute of Latin American Studies, UT-Austin.

- 2006 - 2018 Co-Supervisor of Paleomagnetism Laboratory, Jackson School of Geosciences, with Dr. Jack Holt.
2014 Editor, *Toward an Improved Understanding of Uplift Mechanisms and the Elevation History of the Tibetan Plateau*, GSA Special Paper, v. 507, J. Nie, B.K. Horton, G.D. Hoke.
- 2009 - 2013 Editor, *Basin Research*, journal published by Wiley.
- 2008 - 2013 Editorial Board, *Lithosphere*, journal published by Geological Society of America.
- 2012 Guest Editor, *Special Issue: Tectonic and Climatic Shaping of the Northern Andes and Southern Caribbean Margin*, Journal of South American Earth Sciences, v. 39, G. Bayona, B.K. Horton, A. Reyes-Harker.
- 2010 Session co-chair, AAPG annual convention, *Regional Interaction of Tectonics and Sedimentation: Examining Relationships Between Deformation and Basin Evolution*.
- 2009 Short Course Instructor, Ecopetrol, Instituto Colombiano del Petróleo, Bucaramanga, Colombia, *Basin Analysis*.
- 2009 Session co-chair, AGU fall meeting, *Cenozoic Mountain Building in Asia and South America: Impact on Surface Processes, Erosion, Climate Change, and Deep Earth Processes*.
- 2008 Short Course Instructor, Universidad Industrial de Santander, Bucaramanga, Colombia, *Basin Analysis*.
- 2007 Session co-chair, AAPG annual convention, *Tectonic Controls on Sedimentation*.
- 2004 - 2006 Member, technical committee, GSA Special Conference, April 2006, Mendoza, Argentina, *Backbone of the Americas from Patagonia to Alaska*.
- 2005 Panel member, NSF Tectonics, Earth Sciences Division.
- 2005 Session co-chair, GSA annual meeting, *Orogenic Plateaus from Top to Bottom*.
- 2002 - 2004 Member/chair, nominations committee for division president, GSA Sedimentary Geology Division.
- 2002 Session co-chair, AGU fall meeting, *Tectonics and Structure of Tibet and China*.
- 2001 Session co-chair, AGU fall meeting, *Andean Tectonics: Subduction, Deformation, and Volcanism*.
- 2001 Judge, Earth & Space Sciences Student Organization Symposium, UCLA.
- 2001 Judge, Outstanding Student Presentation Award, AGU fall meeting.
- 1995 Field trip co-leader, GSA Rocky Mountain section meeting, *Sedimentology and tectonics of the Bannack-McKnight Canyon-Red Butte area, southwest Montana: New perspectives on the Beaverhead Group and Sevier orogenic belt*.
- 2000 - present Reviewer of proposals to National Science Foundation, American Chemical Society, NASA, European Science Foundation, National Geographic Society, Natural Environmental Research Council (UK), German Science Foundation, Netherlands Organization for Scientific Research, Swiss National Science Foundations, Czech Science Foundation, National Fund for Scientific and Technological Research (Chile), and other organizations.
- 2000 - present Reviewer of manuscripts submitted to *Andean Geology*, *Basin Research*, *Earth and Planetary Science Letters*, *Earth-Science Reviews*, *Geological Society of America Bulletin*, *GSA special publications*, *Geological Magazine*, *Geology*, *Geological Society of London special publication*, *Geosphere*, *International Journal of Earth Sciences*, *Journal of Asian Earth Sciences*, *Journal of Geology*, *Journal of Geophysical Research*, *Journal of Sedimentary Research*, *Journal of South American Earth Sciences*, *Lithosphere*, *Marine and Petroleum Geology*, *Nature Geoscience*, *Science*, *Sedimentary Geology*, *Sedimentology*, *Tectonics*, *Tectonophysics*, *Terra Nova*.

Invited Lectures

- 2022 Texas A&M University, Department of Geology and Geophysics
Arizona State University, School of Earth and Space Exploration
Carnegie Institution for Science, Earth & Planets Laboratory
- 2021 University of Texas at Arlington, Department of Earth and Environmental Sciences
Universidade de São Paulo, Instituto de Geociências
Duke University, Nicholas School of the Environment
- 2020 The Geology of Colombia Symposium, Servicio Geológico Colombiano Bogota, Colombia
University of Miami, Ohio
- 2019 Université Grenoble Alpes, Grenoble, France
Institute of Tibetan Plateau Research, Chinese Academy of Sciences, Beijing, China
School of Geosciences and Resources, China University of Geosciences, Beijing, China
University of Houston, Department of Earth and Atmospheric Sciences

- Workshop on Ecuadorian Geology, Escuela Politécnica Nacional, Quito, Ecuador
 Istanbul Technical University, Istanbul, Turkey
 Plates Symposium, Institute for Geophysics, University of Texas at Austin
 Universidade de São Paulo, São Paulo, Brazil
- 2018 Congreso Geológico Chileno, Universidad de Concepción, Concepción, Chile
 Colegio de Geólogos de Bolivia, Cochabamba, Bolivia
 Stanford University, Department of Geological Sciences
- 2017 Escuela Politécnica Nacional, Facultad de Geología y Petroleos, Quito, Ecuador
- 2016 Yachay Tech University, School of Geological Sciences, Urcuquí, Ecuador
 University of Texas at Austin, Department of Geological Sciences, Tectonics Seminar
 Servicio Geológico Colombiano, 100 Years of Scientific Production, Bogotá, Colombia
- 2015 Escuela Politécnica Nacional, Facultad de Geología y Petroleos, Quito, Ecuador
 Duke University, Nicholas School of the Environment
- 2014 Yachay Tech University, Urcuquí, Ecuador
 University of Houston, Department of Earth and Atmospheric Sciences
 Pacific Rubiales Energy, Bogotá, Colombia
- 2013 Hocol Petroleum Company, Bogotá, Colombia
 University of Arizona, Department of Geosciences
 ExxonMobil Exploration Company, Colombia Operations Team, Houston, Texas
 Research School of Arid Environment and Climate Change, Lanzhou University, Lanzhou, China
 Escuela Politécnica Nacional, Instituto de Ciencias Biológicas, Quito, Ecuador
- 2012 Duke University, National Evolutionary Synthesis Center
- 2011 University of Texas at Austin, Department of Geological Sciences, Departmental Colloquium
 University of Texas at Austin, Department of Geological Sciences, Tectonics Seminar
 Petro Matad, Ulaanbaatar, Mongolia
- 2010 University of North Carolina, Department of Geological Sciences
 University of Texas at Austin, Institute for Geophysics
- 2009 Ecopetrol, Instituto Colombiano del Petróleo, Bucaramanga, Colombia
- 2008 Universidad Industrial de Santander, Bucaramanga, Colombia
 University of Wyoming, Department of Geology and Geophysics
- 2007 Instituto Asociación Colombiana de Geólogos y Geofísicos del Petróleo, Bogotá, Colombia
 Hocol Petroleum Company, Bogotá, Colombia
 Ecopetrol, Instituto Colombiano del Petróleo, Bucaramanga, Colombia
 University of Edinburgh, School of Geosciences, Scotland, UK
 Universität Potsdam, Department of Geosciences, Germany
 Friedrich Schiller University of Jena, Department of Geosciences, Germany
- 2006 Universidad Mayor de San Andrés, Instituto de Investigaciones Geológicas, La Paz, Bolivia
 UCLA, Department of Earth & Space Sciences, Tectonics Seminar
 University of Texas at Austin, Department of Geological Sciences
 University of Texas at Austin, Institute for Geophysics
- 2005 Stanford University, Department of Geological and Environmental Sciences
 University of Oregon, Department of Geological Sciences
 Montana State University, Department of Earth Sciences
 University of Kansas, Department of Geology
- 2004 UCLA, Department of Earth & Space Sciences, Departmental Colloquium
 Oregon State University, Department of Geosciences
- 2003 California Institute of Technology, Division of Geological and Planetary Sciences
 University of New Mexico, Department of Earth and Planetary Sciences
 California State University Northridge, Department of Geological Sciences
- 2002 Purdue University, Department of Earth and Atmospheric Sciences
 Massachusetts Institute of Technology, Department of Earth, Atmospheric, and Planetary Sciences
 University of Southern California, Department of Earth Sciences
 UCLA, Department of Earth & Space Sciences, Tectonics Seminar
- 2000 UCLA, Department of Earth & Space Sciences, Departmental Colloquium
 UCLA, Department of Earth & Space Sciences, Tectonics Seminar
- 1999 Northwestern University, Department of Geological Sciences

1998 University of Houston, Department of Geosciences
 Rice University, Department of Earth Sciences
 Lehigh University, Department of Earth and Environmental Sciences (2)
 Case Western Reserve University, Department of Geological Sciences
 Louisiana State University, Department of Geology & Geophysics

Outreach Activities

2022 EDGE panel discussion speaker. Jackson School of Geosciences EDGE (Enhancing Diversity in Geoscience Education) graduate student recruiting event: M.S. and Ph.D. degree planning.

2021 - present Co-Leader, MUSICA Teacher Training Initiative, Carnegie Institution for Science, Arizona State University, University of Texas at Austin.

2020 - present Collaborative research agreement with Escuela Politécnica Nacional, Facultad de Geología y Petroleos, Quito, Ecuador: “Internal and external drivers of orogenic episodicity in the Ecuadorian Andes” including field and laboratory research.

2019 - present Member, Diversity, Equity and Inclusion Committee, Jackson School of Geosciences, University of Texas at Austin.

2019 Invited speaker, Undergraduate Geological Society, Jackson School of Geosciences, UT-Austin.

2019 Judge, European Geophysical Union, General Assembly, Vienna, Austria.

2016 - 2017 External reviewer, collaborative Ph.D. degree program between Université Grenoble Alpes, France, and Universidad Nacional de Bogotá, Colombia.

2015 - present Collaborative research agreement with Escuela Politécnica Nacional, Facultad de Geología y Petroleos, Quito, Ecuador: “Levantamiento de los Andes y los Cambios en el Origen y la Evolucion Biológica en los Andes y la Amazonia,” including field and laboratory research.

2013 - present Collaborative research agreement with Universidad Mayor de San Andrés, (UMSA), La Paz, Bolivia, including field training, collaborative research, and international exchange visits with UMSA professors and advanced geology students.

2011 - present Presenter, “Field research and travel safety” lecture (2 hrs) in required graduate course “Supervised Teaching in Geological Sciences” (GEO 298T), ~75 students/yr, UT-Austin.

2007 - present Member, Teresa Lozano Long Institute of Latin American Studies, UT-Austin (www.utexas.edu/cola/insts/lilias).

2013 Panelist and presenter, “Introduction to Graduate School Culture, Professors’ Expectations, and Working with Advisors” colloquium, UT International Office, Academic English Program (<http://world.utexas.edu/esl/programs/aep>), 8 week summer program for ~80 ESL students.

2009 Field-trip leader, GeoFORCE Texas (www.jsge.utexas.edu/geoforce), an outreach program at UT-Austin that encourages underrepresented Latino and African-American students to pursue STEM careers.

2009 Instructor, Basin analysis short course, Ecopetrol, Instituto Colombiano del Petróleo, Bucaramanga, Colombia.

2008 - 2009 Faculty sponsor and mentor, UT Graduate School Diversity Mentoring Fellowship (www.utexas.edu/ogs/faculty/mentoring.html) to recruit underrepresented students.

2008 Instructor, Basin analysis short course, Universidad Industrial de Santander, Bucaramanga, Colombia.

2004 - 2006 Mentor and science technical advisor to graduate students integrating science and technology in their screenwriting and directing, Alfred P. Sloan Foundation Fellowship Program (www.sloan.org), UCLA Department of Film and Television.

2004 - 2006 Science-fair consultant for Mathematics Engineering Science Achievement (www.mesa.ucop.edu), UCLA Center for Excellence in Engineering and Diversity program for underrepresented groups (minorities, poverty line, single-parent home), Emerson middle school, Los Angeles.

2003 - 2004 Speaker and field-trip leader, Center for Excellence in Education (www.cee.org), Role Models and Leaders Project: encourages disadvantaged high-school students to pursue higher education and careers in science and technology.

2002 - 2006 Collaborative research agreement with Sergeotecmin (Bolivian geological survey), La Paz, Bolivia.

University Service, UT-Austin and UT Jackson School of Geosciences

2022 - present Faculty Development Leave Committee.

2018 - present Endowment Review Committee.

- 2019 - 2022 Chair, Graduate Studies Committee, Geosciences program, Office of Graduate Studies.
- 2019 - 2022 Graduate Advisor, Jackson School of Geosciences.
- 2019 - 2022 Diversity, Equity and Inclusion Committee.
- 2018 - 2022 Appointments Committee.
- 2015 - 2018 Awards Committee.
- 2014 - 2017 Endowments Committee.
- 2014 - 2015 Research Scientist Search Committee, Clastic Sedimentology, Bureau of Economic Geology.
- 2013 - 2014 Graduate Admissions and Support Committee.
- 2009 - 2011 Chair, Sedimentology-Stratigraphy Education and Research Group.
- 2009 - 2011 Graduate Admissions and Support Committee.
- 2008 - 2009 Faculty Search Committee, Crust-Mantle-Core position.
- 2007 - 2010 Opportunity Hires Committee.
- 2007 - 2008 Internal Change of Appointment Committee.
- 2006 - 2018 Co-Supervisor of Paleomagnetism Laboratory, with Dr. Jack Holt.

University Service, UT-Austin, Department of Geological Sciences

- 2022 - present Faculty Evaluation Committee, Associate Professor promotion review.
- 2022 - present Comprehensive Periodic Review (CPR) committee; Full Professor.
- 2022 - present Teaching Evaluator (2): Assistant Professor.
- 2021 - present Supervisor/Evaluator, DGS Research Associate.
- 2021 - present Mentor to Assistant Professor, DGS Mentoring Program.
- 2021 - 2022 Faculty Evaluation Committee, Full Professor periodic (post-tenure) review.
- 2021 - 2022 Faculty Evaluation Committee, Associate Professor promotion review.
- 2020 - 2021 Faculty Search Committee, Structural Geology.
- 2020 - 2021 Faculty Evaluation Committee, Associate Professor promotion review.
- 2019 - 2020 Chair, Faculty Search Committee, Sedimentary Geology.
- 2019 - 2020 Faculty Evaluation Committee, Associate Professor promotion review.
- 2018 - 2019 Chair, Faculty Search Committee, Endowed Chair in Sedimentary Geology.
- 2017 - 2019 Awards Committee.
- 2017 - 2018 Faculty Search Committee, Endowed Chair in Structural Geology.
- 2015 - 2018 Chair (Inaugural), Awards Committee.
- 2014 - 2015 Faculty Comprehensive Periodic (Post-Tenure) Review Evaluation Committee (7 Professors).
- 2014 - 2015 Faculty Evaluation Committee, Assistant Professor tenure review.
- 2013 - 2014 Chair, Faculty Evaluation Committee, Research Associate Professor promotion review.
- 2013 - 2014 Faculty Evaluation Committee, Assistant Professor tenure review.
- 2012 - 2013 Research Scientist Search Committee, Multicollector ICP-MS facility manager.
- 2012 - 2013 Faculty Evaluation Committee, Assistant Professor review.
- 2010 - 2011 Chair, Faculty Search Committee, Structural Geology and Tectonics.
- 2009 - 2011 Faculty Search Committee, Structure-Tectonics and Geochronology.
- 2009 - 2010 Research Scientist Search Committee, Multicollector ICP-MS facility manager.
- 2008 - 2009 Faculty Search Committee, Structure-Tectonics and Geochronology.
- 2008 - 2009 Ad Hoc Committee, Personnel Action (Structure-Tectonics).

Committees, UT Institute for Geophysics

- 2020 - present Mentor to Research Scientist, UTIG Mentoring Program for Research Scientists.
- 2018 - 2019 Chair, Annual Performance Evaluation Committee.
- 2017 - 2018 Annual Performance Evaluation Committee.
- 2014 - 2015 Joint Appointments Committee.
- 2010 - 2011 Research Scientist Search Committee, Plate Deformation.

Courses Taught

- 2006 - present Graduate courses, UT-Austin: Sedimentary Basin Analysis; Sediment Provenance (new); Tectonic and Climatic Interactions in Foreland Basins (new); Tectonics and Climate of South America (new); Dynamic Field Stratigraphy: Andes (new: 6 offerings: central Argentina, northern Argentina, Ecuador, Romania, Wyoming, Amazon River); Fundamentals of Paleomagnetism (new).

- 2006 - present Undergraduate courses, UT-Austin: Introduction to Field & Stratigraphic Methods; Sedimentary Rocks; Field Geology (summer); Tectonics and Climate of South America (new); Fundamentals of Paleomagnetism (new).
- 1999 - 2006 Graduate courses, UCLA, LSU: Advanced Physical Sedimentology (new), Basin Analysis, Field Geology for Graduate Students (summer).
- 1999 - 2006 Undergraduate courses, UCLA, LSU: Advanced Sedimentology (new), Basin Analysis, Advanced Field Geology (summer field camp), Historical and Regional Geology, Sedimentary Petrology.
- 1999 - 2006 Seminars, UCLA, LSU: Arid Land Sedimentology (new), Field Trip: Geological Transect Across the Central Andes (new), Mountain Building Processes (new), Tectonics and Sedimentation (new), Thrust Belts and Foreland Basins (new).

Field Trip Leader

- 2022 Dynamic Field Stratigraphy: California (1 week), with trip leader Matt Malkowski.
- 2022 Basin Architecture: Colorado (1 week), with trip leader Nick Perez (Texas A&M).
- 2022 Geology of the Grand Canyon (3 days), MUSICA Teacher Training Initiative.
- 2021 Dynamic Field Stratigraphy: Wyoming (1 week), with Cornel Olariu.
- 2021 Introduction to Field & Stratigraphic Methods: central Texas (4 one-day trips)
- 2020 Introduction to Field & Stratigraphic Methods: central Texas (3 one-day trips, 3 online trips)
- 2019 Introduction to Field & Stratigraphic Methods: central Texas (3 one-day trips).
- 2018 Tectonic and Climatic Interactions in Foreland Basins: Utah (1 week), with Ron Steel.
- 2018 South American Symposium on Isotope Geology: Bolivia (1 week), with Amanda Calle.
- 2018 Dynamic Field Stratigraphy: Romania (2 weeks), with Cornel Olariu.
- 2018 Introduction to Field & Stratigraphic Methods: central Texas (6 one-day trips).
- 2017 Dynamic Field Stratigraphy: Cordilleran foreland basin, Utah, Wyoming (1 week).
- 2017 Dynamic Field Stratigraphy: Andes: foreland, hinterland, and forearc basins, Ecuador (2 weeks).
- 2016 Yachay University: Geology of Ecuador: foreland to forearc transect across the Andes (2 weeks).
- 2016 Sediment Provenance: Cordilleran foreland basin, Utah (1 week), with Edgardo Pujols.
- 2015 Sedimentary Basin Analysis: San Juan and Mendoza provinces, Argentina (2 weeks).
- 2015 Introduction to Field & Stratigraphic Methods: central Texas (6 one-day trips).
- 2014 Tectonic and Climatic Interactions in Foreland Basins: New Mexico-Colorado (1 week).
- 2014 Dynamic Field Stratigraphy: Andes: Neuquén and Mendoza provinces, Argentina (2 weeks).
- 2012 Sedimentary Basin Analysis: California, Nevada, Utah (1 week).
- 2012 Introduction to Field & Stratigraphic Methods: central Texas (6 one-day trips).
- 2011 Tectonic and Climatic Interactions in Foreland Basins: Utah (1 week).
- 2011 Introduction to Field & Stratigraphic Methods: central Texas (6 one-day trips).
- 2010 Introduction to Field & Stratigraphic Methods: central Texas (6 one-day trips).
- 2008 Introduction to Field & Stratigraphic Methods: central Texas (9 one-day trips).
- 2006 Advanced Field Geology: Nevada, Utah (5 weeks).
- 2006 Seminar: Sedimentology: Mojave Desert, California (3 days).
- 2005 Advanced Field Geology: Nevada, Utah (5 weeks).
- 2005 Sedimentary Petrology: southern California (4 one-day trips).
- 2005 Historical and Regional Geology: California, Nevada, Utah (3 days).
- 2004 Advanced Field Geology: Nevada, Utah (5 weeks).
- 2004 Basin Analysis: southern California (2 one-day trips).
- 2004 Sedimentary Petrology: southern California (4 one-day trips).
- 2004 Advanced Physical Sedimentology: Mojave Desert, California (3 days).
- 2003 Field Seminar: Geological Transect, Central Andean Plateau: Bolivia (3 weeks).
- 2003 Advanced Field Geology: Nevada, Utah (5 weeks).
- 2003 Seminar: Paleotectonics: Thrust belts and foreland basins: Utah (1 week).
- 2002 Advanced Field Geology: Nevada, Utah (5 weeks).
- 2002 Field Geology for Graduate Students: California, Nevada, Utah (1 week).
- 2002 Basin Analysis: southern California (2 one-day trips).
- 2001 Special Topics: Tectonics and Sedimentation: California (1 week).
- 2000 Advanced Sedimentology: Baton Rouge, Louisiana region (2 one-day trips).
- 2000 Special Topics: Arid Land Sedimentology (1 one-day trip).
- 1999 Basin Analysis: Baton Rouge, Louisiana region (1 one-day trip).

Graduate Student Research Theses: name, year, thesis title, degree, institution

- [36] Banks, C., 2022, *Sediment dispersal and source-to-sink dynamics in active river systems of the Ecuadorian Andes and foreland basin*: M.S. thesis, UT-Austin, 64 p.
- [35] Malone, J.R., 2022, *Detrital zircon provenance of Paleozoic strata in the Falkland/Malvinas Islands: Implications for paleogeography and Gondwanan reconstructions*: M.S. thesis, UT-Austin, 156 p.
- [34] McKeighan, C.A., 2022, *Understanding anthropogenic fault rupture in the Eagle Ford region, south-central Texas*: M.S. thesis, UT-Austin, 62 p.
- [33] Nix, M.B., 2022, *Late Jurassic-Early Cretaceous shifts in sediment dispersal and accumulation in the proximal segments of the Western Canada foreland basin*: M.S. thesis, UT-Austin, 251 p.
- [32] Hirtz, J.A.M., 2021, *Geochronology and provenance of the Belt-Purcell Supergroup of Montana, USA and Alberta, Canada: Implications for the early Mesoproterozoic paleogeography of Laurentia*: M.S. thesis, UT-Austin, 415 p.
- [31] Mackaman-Lofland, C.A., 2020, *Andean deformation and basin evolution during changes in subduction zone geometry (29–33°S)*: Ph.D. dissertation, UT-Austin, 202 p.
- [30] Capaldi, T.N., 2019, *Stratigraphic response to Cordilleran processes along the south central Andean margin*: Ph.D. dissertation, UT-Austin, 173 p.
- [29] Jackson, L.J., 2019, *Detrital provenance of modern rivers and stable isotope paleoaltimetry of Quaternary volcanic glasses in the northern Andes of Ecuador and Peru*: Ph.D. dissertation, UT-Austin, 226 p.
- [28] George, S.W.M., 2019, *Basin evolution, deformation, and magmatism during variable tectonic regimes in the region linking the central and northern Andes*: Ph.D. dissertation, UT-Austin, 158 p.
- [27] Gutierrez, E.G., 2018, *Provenance and geochronological insights into Late Cretaceous-Cenozoic foreland basin development in the Subandean Zone and Oriente Basin of Ecuador*: M.S. thesis, UT-Austin, 134 p.
- [26] Calle, A.Z., 2017, *Andean and pre-Andean basin evolution along the South American convergent margin: Insights from the central Andes of Bolivia: (19.5-22°S)*: Ph.D. dissertation, UT-Austin, 219 p.
- [25] Ramirez, S.G., 2016, *Interactions between sedimentation and deformation in the Kumano forearc basin (Japan) and the Malargue foreland basin (Argentina)*: Ph.D. dissertation, UT-Austin, 251 p.
- [24] Koshnaw, R.I.M., 2016, *Neogene history of exhumation and deposition in the Zagros fold-thrust belt and foreland basin, Kurdistan region of Iraq*: Ph.D. dissertation, UT-Austin, 224 p.
- [23] Bush, M.A., 2016, *Stratigraphic signatures of convergent orogenesis from the plate interior: Studies from Tibet and the southern Rocky Mountains*: Ph.D. dissertation, UT-Austin, 201 p.
- [22] Perez, N.D., 2015, *Cenozoic deformation history of the Andean plateau in southern Peru: Stratigraphic, structural, and geochronologic constraints*: Ph.D. dissertation, UT-Austin, 287 p.
- [21] Anderson, V.J., 2015, *Uplift and exhumation of the Eastern Cordillera of Colombia and its interactions with climate*: Ph.D. dissertation, UT-Austin, 185 p.
- [20] Calle, A.Z., 2013, *Neogene sedimentation and provenance record of the Subandean zone and Chaco foreland basin, southern Bolivia*: M.S. thesis, UT-Austin, 124 p.
- [19] Levina, M., 2013, *Cenozoic sedimentation and exhumation of the foreland basin system in the Precordillera fold-thrust belt (31-32°S), southern central Andes, Argentina*: M.S. thesis, UT-Austin, 100 p.
- [18] Fitch, J.D., 2012, *Cenozoic evolution of a fragmented foreland basin, Altiplano plateau, southern Peru*: M.S. thesis, UT-Austin, 97 p.
- [17] Woodruff, W.H., Jr., 2011, *Late Cenozoic growth and exhumation of the northern Lunggar extensional basin, west-central Tibetan plateau*: M.S. thesis, UT-Austin, 89 p.
- [16] Sanchez, C.J., 2011, *Cenozoic structural evolution of the eastern margin of the Middle Magdalena Valley basin, Colombia: Integration of structural restorations, low-temperature thermochronology, and sandstone petrography*: M.S. thesis, UT-Austin, 114 p.
- [15] Siks, B.C., 2011, *Sedimentary, structural, and provenance record of the Cianzo basin, Puna plateau-Eastern Cordillera boundary, NW Argentina*: M.S. thesis, UT-Austin, 97 p.
- [14] Bande, A., 2010, *Foreland basin evolution and exhumation along the deformation front of the Eastern Cordillera, northern Andes, Colombia*: M.S. thesis, UT-Austin, 106 p.
- [13] Moreno, C.J., 2010, *Paleogene sedimentation patterns and basin evolution during Andean orogenesis, Middle Magdalena Valley basin, Colombia*: M.S. thesis, UT-Austin, 49 p.
- [12] Cardona, P.A., 2009, *Depositional history of the Taranaki Basin, New Zealand: Linking sediment accumulation and subsidence rates to tectonic processes*: M.S. thesis, UT-Austin, 106 p.

- [11] Mackey, G.N., 2009, *Provenance of the south Texas Paleocene-Eocene Wilcox Group, western Gulf of Mexico basin: Insights from sandstone modal compositions and detrital zircon geochronology*: M.S. thesis, UT-Austin, 155 p.
- [10] Perez, N.D., 2009, *Late Miocene sedimentation in the central Andean foreland basin, southern Bolivia: Constraints from magnetostratigraphy*: Undergraduate Honors thesis, UT-Austin, 58 p.
- [9] Giovanni, M.K., 2007, *Tectonic and thermal evolution of the Cordillera Blanca detachment system, Peruvian Andes: Implications for normal faulting in a contractional orogen*: Ph.D. dissertation, UCLA, 236 p.
- [8] Mosolf, J.G., 2007, *The detrital record of rapid Neogene exhumation of the Cordillera Real, Bolivia*: M.S. thesis, UCLA, 65 p.
- [7] Murray, B.P., 2007 *Sedimentology, provenance, and basin development of the synorogenic Peñas and Aranjuez formations, northern Altiplano, Bolivia*: M.S. thesis, UCLA, 68 p.
- [6] Gavillot, Y.G., 2007, *Tectonics of the High Zagros fold-thrust belt, Iran: Constraints on spatial and temporal distribution of thrust activity using (U-Th)/He thermochronometry*: M.S. thesis, UCLA, 53 p.
- [5] Shirvell, C.R., 2006, *Pliocene exhumation along the west Salton detachment system and tectonic evolution of the Fish Creek-Vallecito supradetachment basin, Salton Trough, southern California*: M.S. thesis, UCLA, 133 p.
- [4] Bourke, M.B., 2005, *Sedimentological and paleoenvironmental analysis of middle Eocene strata of the southeastern Kishenehn basin, northwestern Montana*: M.S. thesis, UCLA, 124 p.
- [3] Gillis, R.J., 2005, *Two-phase exhumation of the Cordillera Real, Eastern Cordillera, Bolivia: Inferences from thermochronology and regional structural mapping*: M.S. thesis, UCLA, 150 p.
- [2] Fink, R.J., 2002, *Sedimentology and stratigraphy of the Upper Cretaceous-Paleocene El Molino Formation, Eastern Cordillera and Altiplano, central Andes, Bolivia: Implications for the tectonic development of the central Andes*: M.S. thesis, Louisiana State University, 116 p.
- [1] Hampton, B.A., 2002, *Early-middle Tertiary deposition in the Corque syncline, Altiplano plateau, Bolivia*: M.S. thesis, Louisiana State University, 124 p.

Graduate Student Research Supervision: degree, completion date, research field area, current position

4 current graduate students: 2 Ph.D., 2 M.S.

Acevedo, Eliana, Ph.D. expected 2024 (co-supervised), Universidad de Buenos Aires, Argentina

Butler, Kristina, Ph.D. expected 2023, Argentina

Gutierrez, Juan, M.S. expected 2023, Colombia

Regier, Nicholas, M.S. expected 2024, Argentina

36 graduate students supervised: 11 Ph.D., 25 M.S.

Banks, Claudia, M.S. 2022, now Carbon Capture Geologist, Tetra Tech, Austin, Texas

Malone, Joshua, M.S. 2022, now Ph.D. student, University of Texas at Austin

McKeighan, Caroline, M.S. 2022 (co-supervised), now Geologist, Diamondback Energy, San Antonio, Texas

Nix, Matthew, M.S. 2022, now Geologist, EOG, Corpus Christi, Texas

Hirtz, Jaime, M.S. 2021, now Geologist, U.S. Geological Survey, Denver, Colorado

Mackaman-Lofland, Chelsea, Ph.D. 2020, now Assistant Professor, Denison University

Capaldi, Tomas, Ph.D. 2019, now Assistant Professor, University of Nevada Las Vegas

Jackson, Lily, Ph.D. 2019, now Assistant Research Scientist, University of Wyoming

George, Sarah, Ph.D. 2019, now Assistant Professor, University of Oklahoma

Gutierrez, Evelin Gabriela, M.S. 2018, now Ph.D. student, University of Texas at Austin

Calle, Amanda, Ph.D. 2017, now Geologist, Bureau of Economic Geology, Austin, Texas

Ramirez, Sebastian, Ph.D. 2016 (co-supervised), now Geologist, Shell Oil Company, Houston, Texas

Koshnaw (Mohammed), Renas, Ph.D. 2016, now postdoc, University of Göttingen, Germany

Bush, Meredith, Ph.D. 2016, now High-School Biology Teacher, Seattle, Washington

Perez, Nicholas, Ph.D. 2015, now Associate Professor, Texas A&M University

Anderson, Veronica, Ph.D. 2015, now Data Scientist, kWh Analytics, Houston, Texas

(Levina) Jones, Mariya, M.S. 2013, now Chemistry Tutor, Student Academic Center, UC Davis, California

Calle, Amanda, M.S. 2013, Ph.D. 2017, now Geologist, Bureau of Economic Geology, Austin, Texas

Fitch, Justin, M.S. 2012, now Software Engineer, Infosys, Providence, Rhode Island

Woodruff, William, Jr., M.S. 2011, now Senior Geologist, Hunt Oil Company, Dallas, Texas

Sanchez, Javier, M.S. 2011, Ph.D. 2015, University of Houston, now Geologist, Ecopetrol, Colombia

Siks, Benjamin, M.S. 2011, now Petroleum Geologist, Hilcorp Energy Company, Anchorage, Alaska

Bande, Alejandro, M.S. 2010, Ph.D. 2017, Universität Potsdam, Germany, now Exploration Geologist, Tecpetrol, Buenos Aires, Argentina
 Moreno, Christopher, M.S. 2010, now Systems Administrator, Salesforce, Portland, Oregon
 Cardona, Paola, M.S. 2009 (co-supervised), now Geologist, Ecopetrol, Colombia
 Mackey, Glen, M.S. 2009 (co-supervised), Ph.D. 2019, University of Utah, now Data Scientist, Patch & Sparks, Salt Lake City, Utah
 Perez, Nicholas, B.S. 2009, Ph.D. 2015, now Associate Professor, Texas A&M University
 Gavillot, Yann, M.S. 2007, UCLA (co-supervised). Ph.D. 2014, Oregon State University, now Associate Professor, Montana Bureau of Mines & Geology, Montana Tech
 Mosolf, Jesse, M.S. 2007, UCLA. Ph.D. 2013, UC Santa Barbara, now Associate Professor, Montana Bureau of Mines & Geology, Montana Tech
 Murray, Bryan, M.S. 2007, UCLA. Ph.D. 2014, UC Santa Barbara, now Associate Professor, California Polytechnic State University, Pomona
 Giovanni, Melissa, Ph.D. 2007, UCLA, now Professor, College of Southern Nevada, Las Vegas, Nevada
 (Shirvell) Belgarde, Catherine, M.S. 2006, UCLA (co-supervised), now Superintendent Exploration, BHP, Tucson, Arizona
 Bourke, Matthew, M.S. 2005, UCLA, now Geoscience Manager, ExxonMobil, Houston, Texas
 Gillis, Robert, M.S. 2005, UCLA, now Geologist, Alaska Division of Geological and Geophysical Surveys
 Fink, Richard, M.S. 2002, LSU, now Principal - Operations Geology, ExxonMobil, Houston, Texas
 Hampton, Brian, M.S. 2002, LSU. Ph.D. 2006, Purdue University, now Associate Professor, New Mexico State University

Graduate Student Research Committee Service: committee member

8 current advisory committees: 7 Ph.D., 1 M.S.

Eunsil Jung, Ph.D. 2016-present; Zachary Foster-Baril, 2017-present; Daniel Ruiz, Ph.D. 2018-present; Rawan Alasad, Ph.D. 2019-present; Sarp Karakaya, Ph.D. 2019-present; Fernando Rey, Ph.D. 2021-present; Samuel Martin, University of British Columbia (2021-present); Jacqueline Epperson, MS (2021-present).

52 completed advisory committees: 34 Ph.D., 18 M.S.

Benjamin Rendall, Ph.D. 2022; Yuqian Gan, Ph.D. 2022, Cullen Kortyna, Ph.D. 2022; Keith Minor, Ph.D. 2022; Sarah Davis, Ph.D. 2022; Huber Rivera Rosado, Ph.D. 2022-present, Universidad de Chile (external reviewer); Sebastian Ramiro, Ph.D. 2021; Kelly Olsen, Ph.D. 2021; James Gearon, M.S. 2021; Fernando Rey, M.S. 2021; Leland Spangler, M.S. 2021; Logan West, Ph.D. 2020; Kelly Thomson, Ph.D. 2020; Benjamin Gérard, Ph.D. 2019, Université Grenoble Alpes, France (external reviewer & chair); Margo Odlum, Ph.D. 2019; Doug Barber, Ph.D. 2018; Alejandro Piraquive, Ph.D. 2017, Universidad Nacional de Colombia and Université Grenoble Alpes, France (external reviewer); Edgardo Pujols, Ph.D. 2017; Kelly Thomson, M.S. 2016; Cody Colleps, M.S. 2016; Qiqi Wang, M.S. 2016; James Lyons, Ph.D. 2016; Maureen Walton, Ph.D. 2016; Yanadet Sripanich, Ph.D. 2013 (examining member); Daniel Eakin, Ph.D. 2014; Tricia Alvarez, Ph.D. 2014; Lauren English, Ph.D. 2012 (examining member); Julio Leva-Lopez, Ph.D. 2014; Jason Stephens, Ph.D. 2014; Paul Betka, Ph.D. 2013; W. Ryan Lester, Ph.D. 2013; Allison Ned, M.S. 2013; Kyungwon Chang, Ph.D. 2013 (examining member); Robert Reece, Ph.D. 2012; John Hooker, Ph.D. 2012; Henry Campos, M.S. 2011; Guy Fitz, M.S. 2011; Renas Mohammed, M.S. 2011; Lindsay Lowe Worthington, Ph.D. 2010; Aysen Ozkan, Ph.D. 2010; C. Ryan Elmore, M.S. 2009; Juan Iñigo, M.S. 2009; Jennifer Aschoff, Ph.D. 2008; Eleine Vence, M.S. 2008; Migdalys Salazar, M.S. 2008, Enrique Rosero, Ph.D. 2009 (examining member), Paolo Ballato, Ph.D. 2009, Universität Potsdam, Germany (external reviewer); Sara DiFiori, M.S., UCLA, 2006; Bruce Piscitello, M.A., UCLA Geography, 2006; Mary Kairouz, M.S., UCLA, 2005; Daniel Eastmond, M.S., UCLA, 2004; Bernard Guest, Ph.D., UCLA, 2004; Matthew Spurlin, M.S., UCLA, 2002.

Undergraduate Student Research Service: degree, year

41 undergraduate students mentored

Regina Padilla, B.S. Geology; Geosystems Engineering & Hydrogeology, 2022; Bailey Glenewinkel, B.S. Geology, 2022; Leigh Mercer, B.S. Environmental Sciences: Geology, 2021; Anthony Edgington, B.S. Geology; Geosystems Engineering & Hydrogeology, 2021; Jamie Hirtz, B.S. Geology, 2019; Scarlett Hsia, B.S. Geology, 2018; Christian Baker, B.S. Geology, 2016; Jasmin Alfaro, B.S. Geology, 2016; Saloni Tandon, B.S. Geology, 2015; Zehao Xue, B.S. Geology, 2015; Andrew Reisdorf, B.S. Geology, 2015; Douglas Phillips, B.S. Geology, 2015; Markus Behnke, B.S. Geology, 2015; Dylan Hampshire, B.S. Geology, 2014; Christina Andry, B.S. Geology, 2015; Missy Null, B.S.

Environmental Science, 2015; Regina Manion, B.S. Geology, 2015; Austin Moore, B.S. Geology, 2015; Alejandra Eljuri, B.S. Geology, 2014; Mary K. Bales, B.S. Geology, 2013; Kelly Hansard, B.S. Geosystems Engineering, 2012; Taylor Culpepper, B.S. Environmental Science, 2012; Adam Bowerman, B.S. Geology, 2012; Frank Morgan, B.S. Geology, 2011; Joseph Zimowski, B.S. Geology, 2010; Jennifer Knowles, B.S. Geology, 2010; Guy Fitz, Independent Study, Fall 2009; Bryan Ott, Independent Study, Fall 2009; Keith Nelson, B.S. Geology, 2009; Jose David Tovar, B.S. Geology, 2009; Nicholas Perez, B.S. Geology, 2009; Nataleigh Vann, B.S. Geology, 2009; Andrew Nicholson, B.S. Geology, 2008; Neil Ryan McKenzie, B.S. Paleobiology, UCLA, 2006; David Gingrich, B.S. Geology, UCLA, 2005; Holly Caprio, B.S. Geological Engineering, UCLA, 2004; Christian Pulido, Undeclared, UCLA, 2003; Matthew Bourke, B.A. Geology, Wesleyan University, 2001; Patrick Guillot, B.S. Mechanical Engineering, LSU, 2001; Jason Burns, B.A. Geology, Wesleyan University, 2001; Bobby Kato, B.A. Pre-Law, LSU, 2001.

Postdoctoral Research Supervision: postdoctoral research/dates/institution, current position

10 postdoctoral researchers mentored

- Jackson, Lily, 2020 - 2021, provenance, paleoaltimetry, geochronology, geochemistry.
now Assistant Research Scientist, University of Wyoming.
- Sickmann, Zachary, 2018 - 2019, provenance, river transport, coastal processes, geochronology.
now Assistant Professor, University of Texas at Dallas.
- Calle, Amanda, 2017 - 2018, provenance, basin analysis, sedimentology, geochronology, 2018-2019.
now Geologist, Bureau of Economic Geology, Austin, Austin, Texas.
- McKenzie, N. Ryan, 2012 - 2014, paleobiology, basin analysis, geochronology.
now Associate Professor, University of Hong Kong.
- Cassel, Elizabeth, 2011 - 2013, paleoaltimetry, basin analysis, geochronology.
now Associate Professor, University of Idaho.
- Saylor, Joel, 2008 - 2012, basin analysis, geo/thermochronology, paleoaltimetry.
now Assistant Professor, University of British Columbia, Canada.
- Parra, Mauricio, 2009 - 2010, geo/thermochronology, basin analysis.
now Professor, Institute of Energy and Environment, University of São Paulo, Brazil.
- Nie, Junsheng, 2008 - 2010, paleomagnetism, climate change, geochronology.
now Professor, Lanzhou University, Lanzhou, China.
- Zhou, Jiangyu, 2003, UCLA, sedimentology, basin analysis.
now Professor, China University of Geosciences, Wuhan, China.
- Dupont-Nivet, Guillaume, 2002 - 2003, UCLA, paleomagnetism, basin analysis.
now Assistant Professor, Université de Rennes, France.

Peer-Reviewed Publications (underlined = graduate student; * = postdoctoral scholar)

*140 articles published: 28 first author (8 sole author); 47 second author; 65 other.
(includes 75 first-authored articles by student (63) and postdoc (12) advisees).*

Researcher ID = A-1804-2009

Web of Science Researcher ID = P-5772-2019

Google Scholar h-index = 60 (first author h-index = 24). Total citations = >11,000. (December 2022)

ISI Web of Science h-index = 50 (first author h-index = 22).

- [140] Acevedo, E., *Fernández Paz, L., Encinas, A., **Horton, B.K.**, Hernando, A., Valencia, V., and Folguera A., in press (2023), Late Jurassic back-arc extension in the Neuquén Basin (~37°S): Insights from structural, sedimentological, and provenance analyses: *Basin Research*, v. 35, doi:10.1111/bre.12744.
- [139] George, S.W.M., Perez, N.D., *Struble, W., Curry, M.E., and **Horton, B.K.**, 2022, Aseismic ridge subduction focused late Cenozoic exhumation above the Peruvian flat slab: *Earth and Planetary Science Letters*, v. 600, doi:10.1016/j.epsl.2022.117754.
- [138] **Horton, B.K.**, Capaldi, T.N., Mackaman-Lofland, C., Perez, N.D., Bush, M.A., Fuentes, F., and Constenius, K.N., 2022, Broken foreland basins and the influence of subduction dynamics, tectonic inheritance, and mechanical triggers: *Earth Science Reviews*, v. 234, doi:10.1016/j.earscirev.2022.104193 [invited review].
- [137] Mackaman-Lofland, C., **Horton, B.K.**, Ketcham, R.A., McQuarrie, N., Fosdick, J.C., Fuentes, F., Constenius, K.N., Capaldi, T.N., Stockli, D.F., and Alvarado, P., 2022, Causes of variable shortening and tectonic

- subsidence during changes in subduction: insights from flexural thermokinematic modeling of the Neogene southern central Andes (28–30°S): *Tectonics*, v. 41, doi:10.1029/2022TC007334.
- [136] **Horton, B.K.**, **Capaldi, T.N.**, and **Perez, N.D.**, 2022, The role of flat slab subduction, ridge subduction, and tectonic inheritance in Andean deformation: *Geology*, v. 50, p. 1007-1012, doi:10.1130/G50094.1.
- [135] **Horton, B.K.**, and Folguera, A., 2022, Tectonic inheritance and structural styles in the Andean fold-thrust belt and foreland basin, in Zamora, G., and Mora, A., eds., *Andean Structural Styles: A Seismic Atlas*: Elsevier, p. 3-28, doi:10.1016/B978-0-323-85175-6.00001-8.
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