

Ryan Bruce Anderson
Graduate Research Assistant
Washington State University

Curriculum Vitae

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Education:

Ph.D., Geology Washington State University (in progress)
M.S., Geology University of Nevada, Reno, 2013
B.S., Earth Science Utah Valley University, 2010

Professional experience:

2017 Teaching Assistant, Washington State University, Summer Field Camp
2017 Instructor, University of Nevada, Reno, Summer Field Camp
2016 Instructor-Director, University of Nevada, Reno, Summer Field Camp
2015-present Graduate Research Assistant, Washington State University
2011-2015 Graduate Research Assistant, Nevada Bureau of Mines and Geology
2013-2015 Teaching Assistant, University of Nevada, Reno, Summer Field Camp
2010-2011 Hydrologic Technician, United States Geological Survey
2008-2010 Undergraduate Research Assistant, Utah Valley University

Publications:

A. Geologic Maps

2. Faulds, J.E., **Anderson, R.B.**, Ramelli, A.R., Drakos, P.S., Vice, G.S., Hinz, N.H., Dering, G.M., Bell, J.W., House, P.K., and Ressel, M.W., 201X (in prep), Preliminary geologic map of the Pyramid Lake Paiute Reservation, Pershing, Lyon, Storey, and Washoe Counties, Nevada: Nevada Bureau of Mines and Geology Open-File Report XX-XX, scale 1:100,000, 4 p.
1. **Anderson, R.B.**, Faulds, J.E., and Dering, G.M., 2013, Preliminary geologic map of the central Lake Range, southern Fox Range, and northern Terraced Hills, Emerson Pass geothermal area, Washoe County, Nevada: Nevada Bureau of Mines and Geology Open-File Report 13-10, scale 1:24,000, 9 p.

B. Articles:

7. Calle, A.Z., Horton, B.K., Limachi, R., Stockli, D.F., Uzeda-Orellana, G.V., **Anderson, R.B.**, Long, S.P., 2017, Cenozoic provenance and depositional record of the Subandean foreland basin during growth and advance of the central Andean fold-thrust belt, southern Bolivia, in Zamora, G., McClay, K., and Ramos, V., Petroleum Basins and Hydrocarbon Potential of the Andes of Peru and Bolivia: American Association of Geologists Memoir (submitted).
6. **Anderson, R.B.**, Long, S.P., Horton, B.K., and Calle, A.Z., and Ramirez, V., 2017, Shortening and structural architecture of the Andean fold-thrust belt of southern Bolivia (21°S): Implications for kinematic development and crustal thickening of the central Andes: *Geosphere*, v. 13, p. 538-558, doi:10.1130/GES01433.1.
5. **Anderson, R.B.**, and Faulds, J.E., 2013, Structural controls of the Emerson Pass geothermal system, Washoe County, Nevada: *Geothermal Resources Council Transactions*, V. 37, p. 453-458.
4. Bunds, M.P., Emerman, S.H., Bhattarai, T.N., **Anderson, R.B.**, Adhikari, N., Karki, K., and Palmer, M., in review, A new lichen apparent growth curve for the Nepal Himalaya, with applications to dating GLOFs, major landslides and mani walls.
3. Bunds, M.P., Emerman, S.H., Bhattarai, T.N., **Anderson, R.B.**, Adhikari, N., Karki, K., and Palmer, M., 2010, Using lichenometry to assess long term GLOF and landslide frequency in the Nepal Himalaya: *Proceedings of the 11th IAEG Congress*, Williams, A.L., Pinches, G.M., Chin, C.Y., McMorran, T.J., and Massey, C.I., eds.
2. Emerman, S.H., **R.B. Anderson**, S. Bhandari, R.R. Bhattarai, M.A. Palmer, T.N. Bhattarai, and M.P. Bunds, 2011, Arsenic and other heavy metals in the Sunkoshi and Saptakoshi Rivers, eastern Nepal: *Journal of Nepal Geological Society*, v. 43, pp. 101-114.
1. Emerman, S.H., T. Prasai, **R.B. Anderson**, and M.A. Palmer, 2010, Arsenic contamination of groundwater in the Kathmandu Valley, Nepal, as a consequence of rapid erosion: *Journal of Nepal Geological Society*, v. 40, pp. 49-60.

C. Conference abstracts:

10. **Anderson, R.B.**, Long, S.P., Horton, B.K., Calle, A.Z., Ramirez, V., 2016, Regional geologic map across the Andean retroarc fold-thrust belt of southern Bolivia: Insights on the Subandean zone, Interandean zone, and Eastern Cordillera at 21°S: *Geological Society of America Abstracts with Programs*, v. 48, no. 7.
9. **Anderson, R.B.**, Long, S.P., Horton, B.K., Calle, A.Z., Ramirez, V., 2016, Retroarc crustal shortening and structural architecture of the Andean Fold-Thrust belt of southern Bolivia (21°S): Implications for kinematic development and crustal thickening of the central Andes: *Geological Society of America Abstracts with Programs*, v. 48, no. 7.
8. Dee, S., Kell, A., Angster, S.J., Kent, G.M., Driscoll, N., Faulds, J.E., **Anderson, R.B.**, 2016, Quaternary Faulting in the Pyramid Lake Basin, Northern Walker Lane, Nevada: *Seismological Research Letters*, v. 8, n. 2B

7. **Anderson, R.B.**, Long, S.P., Horton, B.K., Calle, A.Z., Ramirez, V., 2015, Crustal shortening and structural architecture of the Interandean and Subandean zones of southern Bolivia (21°S): Constraints from a new balanced cross section: AGU Fall Meeting
6. Calle, A.Z., Horton, B.K., **Anderson, R.B.**, Long, S.P., 2015, Late Cretaceous-Cenozoic Evolution of the Central Andean Foreland Basin System in the Eastern Cordillera to Subandean Zone, Southern Bolivia: AGU Fall Meeting
5. Faulds, J.E., Hinz, N.H., Siler, D.L., Coolbaugh, M.F., Dering, G., Edwards, J., **Anderson, R.B.**, Forson, C., and Sadowski, A.J., 2015, Detailed conventional and innovative 3D geologic maps of geothermal systems in the Great Basin region, western USA: critical cost-effective tools for geothermal exploration: Geological Society of America Abstracts with Programs, v. 47, no. 7
4. **Anderson, R.B.**, Long, S.P., Horton, B.K., Calle, A., and Stockli, D.F., 2014, New apatite and zircon (UTh)/He constraints on the timing of thrust-related exhumation in the southern Bolivian (21°S) Andes: AGU Fall Meeting.
3. Calle, A.Z., Horton, B.K., Long, S.P., Ramirez, V., and **Anderson, R.B.**, 2014, Shortening, exhumation, and sedimentation in the fold-thrust belt and foreland basin system of southern Bolivia: XIX Congreso Argentino Geológico, Cordoba, Argentina, June 2-6, 2014.
2. **Anderson, R.B.**, and Faulds, J.E., 2013, Structural controls of the Emerson Pass geothermal system, northwestern Nevada: characterization of a “blind” system: Geological Society of America Abstracts with Programs, Vol. 45, No. 7, p. 827.
1. **Anderson, R.B.**, and Faulds, J.E., 2012, Structural setting of the Emerson Pass geothermal anomaly, Pyramid Lake Paiute Reservation, western Nevada: Eos Trans., American Geophysical Union 93 (57), Fall Meet. Suppl., Abstract V13A-2829.

D. M.S. Thesis:

Anderson, R.B., 2013, Structural controls of the Emerson Pass geothermal system, Washoe County, Nevada [M.S. Thesis]: University of Nevada, Reno

Advisor:

James E. Faulds

Examining Committee:

Wendy Calvin, John Louie, Sean M. Casey

Invited talks:

3. February 9th, 2017- Washington State University/University of Idaho Earth Science Seminar Series
Title: *“Shortening and structural architecture of the Andean fold-thrust belt of southern Bolivia”*
2. February 8th, 2016- Utah Valley University Earth Science Seminar Series
Title: *“Building a temporal record of shortening and deformation migration in*

the Southern Bolivian (21°S) Andes: A Field Based Test of Cordilleran Cyclicity

1. January 22, 2014 – University of Texas, Austin, Jackson School of Geosciences, Petrology, Geochemistry, Structure, and Tectonics talk series
Title: *“Structural controls of the Emerson Pass geothermal system, northwestern Nevada: Characterizing a “blind” system”*

Grants and Awards:

- 2017 – 1st Place, 4th Annual Best Student Geologic Map Competition, Geological Society of America Annual Meeting
- 2014 - \$2500 – AAPG Grants-in-Aid Program, Kenneth H. Crandall Memorial Grant
Project title: Pre-Andean uplift and exhumation as a source of Carboniferous sedimentary rocks in eastern Bolivia
- 2012 - \$1000 – Nevada Petroleum and Geothermal Society Scholarship
- 2009 - \$1000 – Scholarly and Creative Activities Program Grant, Utah Valley University
- 2009 – Student Scholar of the Year, Office of Undergraduate Research and International Programs, Utah Valley University
- 2009 – Outstanding Earth Science Student of the Year, College of Health and Science, Utah Valley University

Professional societies:

- Geological Society of America (GSA)
American Geophysical Union (AGU)
American Association of Petroleum Geologist (AAPG)
Nevada Petroleum and Geothermal Society (NPGS)
Geological Society of Nevada (GSN)

Teaching experience:

University of Nevada, Reno:

- Summer 2016: GEOL 451 – Summer Field Camp- served as interim director and lead instructor
- Summer 2015: GEOL 451 – Summer Field Camp- served as teaching assistant
- Summer 2014: GEOL 451 – Summer Field Camp- served as teaching assistant
- Summer 2013: GEOL 451 – Summer Field Camp- served as teaching assistant

Service:

- 2014-2015: Treasurer, AAPG student chapter, University of Nevada, Reno
- 2013-2014: DGSE Graduate Seminar Speaker Coordinator, University of Nevada, Reno
- 2010-2011: Secretary-Treasurer, Association of Engineering and Environmental Geologists, Intermountain Section

Field Work:

- June-Aug., 2014 (5 weeks), Central Andes, Bolivia
- July-Aug., 2013 (3 weeks), Central Andes, Bolivia
- May-Aug., 2012 (12 weeks), Fox and Lake Ranges, western Nevada
- May-June, 2009 (4 weeks), Central Himalayas, Nepal
- August, 2009 (2 weeks), Guanajuato, Mexico

October, 2008 (2 weeks), Chihuahua, Mexico