

Nicholas L. Swanson-Hysell

Curriculum Vitae

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Academic Appointments

- Assistant Professor, Department of Earth & Planetary Science
University of California, Berkeley 2013 – present
- NSF Earth Sciences Postdoctoral Fellow, Institute for Rock Magnetism
University of Minnesota 2012 – 2013
- Visiting Assistant Professor, Geology Department
Carleton College 2011

Education

- Ph.D., Geosciences, Princeton University 2011
Dissertation: Stratigraphic records of paleogeography and global change from two late Proterozoic basins,
- B.A., Geology, Carleton College, *magna cum laude* 2005

Honors and Awards

- 2016 Geological Society of America Exceptional Reviewer for Lithosphere
- 2015 Hellman Fellow
- 2014 William Gilbert Award (highest award of the American Geophysical Union's Geomagnetism and Paleomagnetism Section)
- 2014 American Geophysical Union Editors' Citation for Excellence in Refereeing for Geophysical Research Letters
- 2010 Harold W. Dodds Honorary Fellowship (Princeton University)
- 2009 Arnold Guyot Teaching Award (Princeton University)

Publications in peer-reviewed journals (* indicates mentored student or post-doc)

28. Fairchild, L.M.*, **Swanson-Hysell, N.L.**, Ramenzani, J., Sprain, C.J.*, and Bowring, S.A. (2017), The end of Midcontinent Rift magmatism and the paleogeography of Laurentia, *Lithosphere*, doi:10.1130/L580.1.
27. Bezaeva, N.S., **Swanson-Hysell, N.L.**, Tikoo, S.M.*, Badyukov, D.D., Kars, M., Egli, R., Chareev, D.A., Fairchild, L.M.*, Khakhalova, E., Strauss, B.E. and Lindquist, A.K. (2016), The effects of 10 to >160 GPa shock on the magnetic properties of basalt and diabase, *Geochemistry Geophysics Geosystems*, 17, 4753-4771, doi:10.1002/2016GC006583.
26. Kilian, T.M.*, **Swanson-Hysell, N.L.**, Macdonald, F.A., Bold, U. and Crowley, J. (2016), Paleomagnetism of the Teel basalts from the Zavkhan Terrane: Implications for Paleozoic paleogeography of Mongolia and the growth of continental crust, *Lithosphere*, 8, 699-715, doi:10.1130/L552.1.

25. Fairchild, L.M.*, **Swanson-Hysell, N.L.**, and Tikoo, S.M.* (2016), A matter of minutes: Breccia dike paleomagnetism provides evidence for rapid crater modification, *Geology*, 44, 723-726, doi:10.1130/G37927.1.
24. Tauxe, L., Shaar, R., Jonestrask, L., **Swanson-Hysell, N.L.**, Jarboe, N., Minnett, R., Koppers, A.A.P., Constable, C.G., Gaastra, K.*, and Fairchild, L.* (2016), PmagPy: Software package for paleomagnetic data analysis and a bridge to the Magnetism Information Consortium (MagIC) Database, *Geochemistry Geophysics Geosystems*, 17, 24502463, doi:10.1002/2016GC006307.
23. **Swanson-Hysell, N.L.**, Kilian, T.M.*, and Hanson, R.H. (2015), A new grand mean paleomagnetic pole for the Umkondo Large Igneous Province with implications for paleogeography and the geomagnetic field, *Geophysical Journal International*, 203, 2237-2247, doi:10.1093/gji/ggv402.
21. Weiss, B.P., Maloof, A.C., Tailby, N., Ramezani, J., Fu, R.R. Fu, Veronica Hanus, V., Trail, D., Watson, B., Harrison, T.M., Bowring, S.A., Kirschvink, J.L., **Swanson-Hysell, N.L.**, Coe, R.S. (2015), Pervasive Remagnetization of Detrital Zircon Host Rocks in the Jack Hills, Western Australia and Implications for Records of the Early Geodynamo, *Earth and Planetary Science Letters*, 430, 115-128, 10.1016/j.epsl.2015.07.067. 22. Reply to Comment on "Pervasive remagnetization of detrital zircon host rocks in the Jack Hills, Western Australia and implications for records of the early geodynamo (2016)", *Earth and Planetary Science Letters*, 450, 409-412, doi:10.1016/j.epsl.2016.07.001.
20. Tikoo, S.M.*, Gattacceca J., **Swanson-Hysell, N.L.**, Weiss, B.P., Suavet, C., and Cournède, C. (2015), Preservation and detectability of shock-induced magnetization, *Journal of Geophysical Research: Planets*, 120, 1461-1475, doi:10.1002/2015JE004840.
19. **Swanson-Hysell, N.L.**, Maloof, A.C., Condon, D.J., Jenkin, G.R.T., Alene, M., Tremblay, M.M.*, Tesema, T., Rooney, A.D. and Haileab, B. (2015), Stratigraphy and geochronology of the Tambien Group, Ethiopia: Evidence for globally synchronous carbon isotope change in the Neoproterozoic, *Geology*, 43, 323-326, doi:10.1130/G36347.1.
18. Feinberg, J.M., Solheid, P.A., **Swanson-Hysell, N.L.**, Jackson, M., and Bowles, J.A. (2015), Full vector low-temperature magnetic measurements of geologic materials, *Geochemistry Geophysics Geosystems*, 16, 301-314, doi:10.1002/2014GC005591.
17. **Swanson-Hysell, N.L.**, Vaughan, A.A.*, Mustain, M.R.*, and Asp, K.E.* (2014), Confirmation of progressive plate motion during the Midcontinent Rift's early magmatic stage, *Geochemistry Geophysics Geosystems*, 15, 2039-2047, doi:10.1002/2013GC005180.
16. **Swanson-Hysell, N.L.**, Burgess, S.D., Maloof, A.C., and Bowring, S.A. (2014), Magmatic activity and plate motion during the latent stage of Midcontinent Rift development, *Geology*, 42, 475-478, doi:10.1130/G35271.1.
15. **Swanson-Hysell, N.L.**, Maloof, A.C., Kirschvink, J.L., Halverson, G.P., and Hurtgen, M.T. (2012), Constraints on Neoproterozoic paleogeography and Paleozoic orogenesis from paleomagnetic records of the Bitter Springs Formation, Amadeus Basin, central Australia, *American Journal of Science*, 312, 817-884, doi:10.2475/08.2012.01.
14. Jackson, M. and **Swanson-Hysell, N.L.** (2012), Rock Magnetism of Remagnetized Carbonate Rocks: Another Look, In: Elmore, R. D., Muxworthy, A. R., Aldana, M. M. and Mena, M., eds., Remagnetization and Chemical Alteration of Sedimentary Rocks, *Geological Society of London Special Publication*, 371, doi:10.1144/SP371.3.

13. Hoffman, P.F., Halverson, G.P., Domack, E.W., Maloof, A.C., **Swanson-Hysell, N.L.**, and Cox, G.M. (2012), Cryogenian glaciations on the southern tropical paleomargin of Laurentia (NE Svalbard and East Greenland), and a primary origin for the upper Russøya (Islay) carbon isotope excursion, *Precambrian Research*, 206, 137-158, doi:10.1016/j.precamres.2012.02.018.
12. Rose, C.V., **Swanson-Hysell, N.L.**, Husson, J.L., Poppick, L.N., Cottle, J.M., Schoene, B. and Maloof, A.C. (2012), Constraints on the origin and relative timing of the Trezona $\delta^{13}\text{C}$ anomaly below the end-Cryogenian glaciation, *Earth and Planetary Science Letters*, 319-320, 241-250, doi:10.1016/j.epsl.2011.12.027.
11. **Swanson-Hysell, N.L.**, Feinberg, J.M., Berquó, T.S., and Maloof, A.C. (2011), A self-reversed remanence held by martite in basalt flows from the 1.1-billion-year-old Keweenawan rift, Canada, *Earth and Planetary Science Letters*, 305, 171-184, doi:10.1016/j.epsl.2011.02.053.
10. **Swanson-Hysell, N.L.**, Rose, C.V., Calmet, C.C., Halverson, G.P., Hurtgen, M.T. and Maloof, A.C. (2010), Cryogenian Glaciation and the Onset of Carbon-Isotope Decoupling, *Science*, 328, 608-611, doi:10.1126/science.1184508.
9. Weiss, B.P., Pedersen, S. Garrick-Bethell, I., Stewart, S.T., Louzada, K.L., Maloof, A.C., and **Swanson-Hysell, N.L.** (2010), Paleomagnetism of impact spherules from Lonar crater, India as a test for impact-generated fields, *Earth and Planetary Science Letters*, 298, 66-76, doi:10.1016/j.epsl.2010.07.028.
8. Maloof, A.C., Stewart, S.T., Weiss, B.P., Soule S.A., **Swanson-Hysell, N.L.**, Louzada, K.L., Garrick-Bethell, I., and Poussart, P.M. (2010), Geology of Lonar Crater, India. *Geological Society of America Bulletin*, 122, 109-126, doi:10.1130/B26474.1.
7. Kopp, R.E., Schumann, D., Raub, T.D., Powars, D.S., Godfrey, L.V., **Swanson-Hysell, N.L.**, Maloof, A.C., Vali, H. and Weiss, B.P. (2009), An Appalachian Amazon?: Magnetofossil evidence for the development of a tropical river-like system in the mid-Atlantic U.S. during the Paleocene-Eocene Thermal Maximum, *Paleoceanography*, 24, doi:10.1029/2009PA001783.
6. Barbeau Jr., D.L., Gombosi, D.J., Zahid, K., Bizimis, M., **Swanson-Hysell, N.L.**, Valencia, V. and Gehrels, G.E. (2009), U/Pb zircon constraints on the age and provenance of the Rocas Verdes basin-fill, Tierra del Fuego, Argentina, *Geochemistry Geophysics Geosystems*, 10, doi:10.1029/2009GC002749.
5. **Swanson-Hysell, N.L.**, Maloof, A.C., Evans, D.A.D. and Weiss, B.P. (2009), No asymmetry in geomagnetic reversals recorded by 1.1-billion-year-old Keweenawan basalts, *Nature Geoscience*, 2, 713-717, doi:10.1038/ngeo622.
4. Barbeau Jr., D.L., Olivero, E.B., **Swanson-Hysell, N.L.**, Zahid, K., Murray, K.E. and Gehrels, G.E. (2009), Detrital-zircon geochronology of the eastern Magallanes foreland basin: Implications for Eocene kinematics of the northern Scotia Arc and Drake Passage, *Earth and Planetary Science Letters*, 284, 489-503, doi:10.1016/j.epsl.2009.05.014.
3. Louzada, K.L., Weiss, B.P., Maloof A.C., Stewart, S.T., **Swanson-Hysell, N.L.** and Soule, S.A. (2008), Paleomagnetism of Lonar impact crater, India, *Earth and Planetary Science Letters*, 275, 308-319, doi:10.1016/j.epsl.2008.08.025.

1. **Swanson-Hysell, N.L.** and Barbeau Jr., D.L. (2007), The diachroneity of alluvial-fan lithostratigraphy? A test case from southeastern Ebro basin magnetostratigraphy, *Earth and Planetary Science Letters*, 262, 343-362, doi:10.1016/j.epsl.2007.07.003.
2. Reply to Garcés et al. comment on The diachroneity of alluvial-fan lithostratigraphy? A test case from southeastern Ebro Basin magnetostratigraphy. *Earth and Planetary Science Letters* (2008), 275, 187-192, doi:10.1016/j.epsl.2008.07.018

Invited Talks

Rice University <i>Earth Science Seminar</i>	04/20/17
San Francisco State University <i>Department of Earth and Climate Sciences Distinguished Speakers Series</i>	02/07/17
Magnetics Information Consortium (MagIC) <i>Science and Database Workshop: Earth's Magnetic Field from the Beginning</i>	01/27/17
San Jose State University <i>Geology Club Speaker Series</i>	10/17/16
U.S. Geological Survey, Menlo Park <i>Pacific Region Colloquium</i>	10/03/16
University of Michigan <i>The evolving Earth from top to base: Rob van der Voo Retirement Symposium</i>	08/26/15
University of California, Davis <i>Earth and Planetary Sciences Department Seminar</i>	02/11/15
Stanford University <i>Geological and Environmental Sciences Department Seminar</i>	11/11/14
Nordic Supercontinent Workshop, <i>Haraldvangen, Norway</i>	10/17/14
Magnetics Information Consortium (MagIC) <i>Science and Database Workshop</i>	05/13/14
University of California, Berkeley <i>Physics Department Compass Lecture Series</i>	04/29/14
University of California, Berkeley <i>Integrative Biology Fossil Coffee Talk</i>	03/11/14
Magnetics Information Consortium (MagIC) <i>Global Seminar Series</i>	02/04/14
Scripps Institution of Oceanography, UCSD <i>Earth Division Seminar Series</i>	01/12/14
California Institute of Technology <i>Geological and Planetary Sciences Seminar Series</i>	12/02/13
University of California, Santa Cruz <i>Whole Earth Seminar Series</i>	11/05/13
University of Wisconsin, River Falls <i>Department of Earth Sciences Seminar</i>	04/25/13
Addis Ababa University <i>Department of Earth Sciences Seminar</i>	02/06/13
American Geophysical Union Fall Meeting 2012 <i>Initiation and Evolution of Rift Systems</i>	12/07/12
University of California, Berkeley <i>EPS Department Seminar Series</i>	04/19/12
McGill University <i>Geobiology Symposium</i>	03/24/12
Massachusetts Institute of Technology <i>EAPS Department Lecture Series</i>	03/09/12
University of Minnesota <i>Earth Sciences Seminar Series</i>	03/01/12
Rutgers—New Brunswick <i>Earth and Planetary Sciences Colloquium</i>	11/30/11
Geological Society of America Annual Meeting <i>T112: Geology of the Midcontinent Rift</i>	10/24/11

Rutgers—Newark <i>Geophysical Society Seminar</i>	03/30/11
Massachusetts Institute of Technology <i>EAPS Department Lecture Series</i>	12/01/10
Lamont-Doherty Earth Observatory, Columbia University <i>Geochemistry Division Seminar</i>	11/17/10
Princeton University <i>Geoscience Department Seminar Series</i>	04/27/10
University of Texas <i>UT Institute for Geophysics Seminar Series</i>	04/02/10
Amherst College <i>Department Seminar</i>	02/25/10
Harvard University <i>A world in transition: Geobiology of the Neoproterozoic-Cambrian Symposium</i>	04/25/08

Memberships

Geological Society of America (GSA)
 American Geophysical Union (AGU)
 Sigma Xi
 Phi Beta Kappa

Original Geological Field Work

Banxi Group, South China [3 weeks] <i>Studying the stratigraphy and paleomagnetism of a thick succession of early Neoproterozoic sedimentary rocks to test hypotheses about the paleogeographic position of South China and true polar wander.</i>	2016
Tambien Group, northern Ethiopia [14 weeks] <i>Developing a stratigraphic framework for a rich archive of early Neoproterozoic sediments deposited in a back-arc basin of the proto-Arabian-Nubian shield in order to better constrain global change leading up to the Sturtian ice age.</i>	2010, 2013, 2015
Midcontinent Rift, Lake Superior Region [23 weeks] <i>Evaluating models of the Mesoproterozoic geomagnetic field and continental motion during supercontinent assembly through detailed stratigraphic studies of lava flows and sediments of the ~1.1 billion-year-old Midcontinent Rift.</i>	2007, 2008, 2011, 2012, 2014, 2015 2016
Slate Islands Impact Structure, Ontario Canada [4 weeks] <i>Testing the hypothesis of shock remanent magnetization within the exposed central uplift of this mid-size impact structure.</i>	2013, 2014
Zavkhan Terrane, Mongolia [4 weeks] <i>Stratigraphic study and paleomagnetic sampling of Neoproterozoic and Ordovician volcanics and sediments with the goal of testing regional and global paleogeographic hypotheses.</i>	2014
Umkondo Large Igneous Province, Botswana [5 weeks] <i>Sampling and contextualizing sills of the late Mesoproterozoic Umkondo province to provide new constraints on late Mesoproterozoic paleogeography and the strength of the late Mesoproterozoic geomagnetic field.</i>	2012
Amadeus Basin, Central Australia [21 weeks] <i>Testing hypotheses for early Neoproterozoic global change through physical/chemical/magnetic-stratigraphy of the Bitter Springs Formation.</i>	2006, 2007, 2008, 2009

- Adelaide Rift Complex, South Australia [7 weeks] 2007
Testing hypotheses for the causes and consequences of Neoproterozoic glaciation through study of pre-, syn- and post-glacial sediments of the Marinoan glacial event.
- Lonar, India [2 weeks] 2006
Bolide impact in basalt as an analog for planetary surface processes and magnetization.
- Southernmost Andes, Argentina and James Ross Basin, Antarctica [8 weeks] 2005, 2009
Furthering understanding of oroclinal development and Drake Passage opening through a sedimentological and detrital zircon study of the Magallanes foreland basin and the James Ross back-arc basin.
- Ebro Basin, Spain [2 weeks] 2004
Subject of undergraduate thesis: magnetic polarity stratigraphy as a tool to constrain foreland basin development and to evaluate models of alluvial-fan stratigraphy.
- Kharkhira Mountains, Mongolian Altai [2 weeks] 2004
Geomorphology of a periglacial sheet of aufeis.

Funding

- NSF EAR-1547434, Geophysics Program Project Grant 2016-2019
Collaborative Research: Testing proposed rapid true polar wander in the Neoproterozoic Zavkhan Volcanics of Mongolia and the Banxi Group of South China (\$286,309)
- NSF EAR-1419894, Tectonics Program Project Grant 2014-2016
Collaborative Research: Quantifying Laurentia's motion, advancing paleogeography and constraining rifting with new paired dates and paleomagnetic data from the Midcontinent Rift (\$170,311)
- NSF EAR-1325230, Sedimentary Geology Program Project Grant 2014-2016
Collaborative Research: Quantifying rates of Neoproterozoic global change, Ethiopia (\$152,425)
- NSF EAR-1316395, Geophysics Program Project Grant 2013-2015
Collaborative Research: Testing the shock remanent magnetization hypothesis in the Slate Island impact structure (\$163,198)
- NSF Earth Sciences Postdoctoral Fellowship 2011-2014
Geomagnetic paleointensity from time-equivalent high and low latitude magmatic events in the late Mesoproterozoic (\$170,000)
- Harold W. Dodds Fellowship 2010-2011
Competitive institutional honorific fellowship at Princeton University (\$69,100)
- Precambrian Research Center Research Grant 2010
A stratigraphic approach to determining the paleointensity of the late Mesoproterozoic geomagnetic field (\$1,000)
- ExxonMobil Geoscience Research Grant 2010
Physical, isotopic and magnetic stratigraphy of the Tambien Group, Ethiopia: a record of early Neoproterozoic global change (\$7,500)
- Institute for Rock Magnetism Visiting Fellowship 2009
Rock magnetic investigation of the anti-parallel mystery phase in 1.1 Ga Keweenawan basalt flows (\$4,000)
- Geological Society of America Graduate Research Grant 2009
Evaluating Neoproterozoic carbon cycle dynamics with paired carbon isotope records from Cryogenian carbonates of northeast Svalbard (\$3,800)

- Sigma Xi Grant-in-aid-of-Research 2009
Evaluating the carrier of an antiparallel magnetization in 1.1 billion-year-old basalt flows through microscopy and rock magnetic experiments (\$990)
- NSF East Asia and Pacific Summer Institute Fellowship 2008
Carbon and sulfur cycling prior to the first Neoproterozoic glacial event—a field and geochemical study (\$5,000)
- Sigma Xi Grant-in-aid-of-Research 2007
Detailed magnetostratigraphy of Keweenawan volcanics at Mamainse Point: Reevaluating reversal asymmetry of the paleo-geomagnetic field in the late Mesoproterozoic (\$908)
- Lewis & Clark Astrobiology Field Scholar, American Philosophical Society and the NASA Astrobiology Institute 2006
Integrated magnetic and chemical stratigraphy of the Bitter Springs Stage, Australia (\$4,500)

Service

Contributor to the open source PmagPy software project and the associated documentation ‘cookbook’ (<http://earthref.org/PmagPy/cookbook>). Developed the ipmag.py module for the project that enables open and reproducible data analysis within the Jupyter notebook environment. This module is being used within the problem sets of the leading paleomagnetism textbook: *Essentials of Paleomagnetism* (<http://earthref.org/MAGIC/books/Tauxe/Essentials/>).

Reviewer for:

Earth and Planetary Science Letters

French Polar Institute (IPEV)

Frontiers in Earth Science

Geochemistry Geophysics Geosystems

Geological Society of America Bulletin

Geological Society of London Special Publication (Supercontinent Cycles Through Earth History)

Geology

Geophysical Journal International

Geophysical Research Letters (awarded 2014 AGU Editors’ Citation for Excellence in Refereeing)

Israel Science Foundation

Journal of Geophysical Research–Solid Earth

Lithosphere (awarded Geological Society of America Exceptional Reviewer in 2016)

National Geographic Society

NSF Geophysics Program

NSF Sedimentary Geology and Paleobiology Program

NSF Tectonics Program

Palaeogeography Palaeoclimatology Palaeoecology

Precambrian Research

Scientific Drilling

Sedimentary Geology

Springer Books

Convener of session “Progress and opportunities in determining geomagnetic field behavior from terrestrial and extraterrestrial materials” at the 2017 International Conference on Rock Magnetism

Member of scientific committee for the 2017 International Conference on Rock Magnetism

Co-convener of 2017 MagIC Workshop: Earth's Magnetic Field from the Beginning; led tutorial and workshop on reproducible scientific computing using PmagPy

Co-convener of 2016 AGU Fall Meeting session "The dynamics and evolution of the interacting core and mantle: insights from paleomagnetic data, simulations and experiments"

Led tutorial on plotting geospatial data using Python at the Berkeley Institute for Data Science Hacker Within meeting (March, 2016).

Led Earth Science outreach activities for fourth graders at a public school in East Oakland pertaining to California's science standards (Spring 2014, Fall 2014, Fall 2015). Organized and led field trip for these students to the Earth and Planetary Science Department at Berkeley and the Lawrence Hall of Science (Spring 2015).

Member of the UC Berkeley Faculty Library Committee for the Engineering and Physical Sciences Libraries (2015 →)

Member of the UC Berkeley Ramsden Fund Committee for the supporting undergraduate education and research within the Earth and Planetary Science Department (2015 →)

Member of the board of directors for the George D. Louderback fund (a non-profit 501(c)(3) corporation supporting students in the Earth Sciences at UC Berkeley) (2014 →)

Senior Fellow, Berkeley Institute for Data Science (2016 – present)

Member of NSF Geophysics Panel

Facilitator for the Paleoenvironments Group of the 2015 IGCP 648 (Supercontinent Cycles and Global Geodynamics) Symposium

Rapporteur for the Continents Group of the 2014 NASA/NSF/Smithsonian Workshop "Beyond Habitability: Life and the Early Earth"

Instructor for 2013 Summer School for Rock Magnetism held for graduate students from across the world at the Institute for Rock Magnetism.

Organized and led tours and hands-on lab experience at the Institute for Rock Magnetism for undergraduate geophysics classes from Carleton College (Spring 2012) and Macalester College (Fall 2012).

Co-organizer (w/ Catherine V. Rose) of 2009 symposium at Princeton entitled *A World in Transition III: Neoproterozoic Earth History*

Teaching and mentoring

Postdoctoral Researchers

2016 → Sarah Slotznick
 2014 – 2016 Taylor Kilian (*now Data Scientist in San Francisco*)
 2013 – 2015 Sonia Tikoo (*now Assistant Professor at Rutgers University*)

PhD Students (primary advisor)

2015 → Luke Fairchild
 2015 → Yuem Park

PhD Students (secondary project advisor and/or committee member)

- 2016 Ian Rose (*member of dissertation committee*)
2015 → Jesse Hahm (*advisor on secondary research project; chair of qualifying exam committee*)
2015 → Michael Antonelli (*advisor on secondary research project; member of qualifying exam committee*)
2014 Jake Seeley (*chair of qualifying exam committee*)
2014 → Dori Contreras (*member of qualifying exam committee, member of dissertation committee*)
2013 → Courtney Sprain (*advisor on secondary research project; member of qualifying exam committee*)
2013 → Marissa Tremblay (*advisor on secondary research project; member of qualifying exam committee*)

Post-Undergraduate Research Assistants

- 2015 Gunnar Speth ('14 UC Berkeley; research assistant)
2012 – 2013 Kris Asp ('12 Carleton College)

Undergraduate Students

- 2015 – 2016 Eliel Anttila ('16 UC Berkeley; Summer Undergraduate Research Fellow)
2014 – 2016 Kevin Gaastra ('16 UC Berkeley; research assistant)
2014 Gunnar Speth ('14 UC Berkeley; research assistant)
2013 – 2015 Luke Fairchild ('15 Carleton College; Thesis title: *High temperature emplacement of clastic breccia dikes and implications for the development and magnetization of impact craters*)
2013 Sara Beroff ('14 UC Berkeley; *New Experiences for Research & Diversity in Science summer research scholar*)
2012 Monica Mustain ('14 Illinois State University; NSF REU research intern)
2011 – 2012 Angus Vaughan ('12 Carleton College; NSF REU research intern; Thesis title: *Paleomagnetic data from Osler Group basalt flows on Simpson Island, Ontario: Evidence for fast plate motion*)

Teaching

- 2017 (Spring) EPS 39A: Earth Science in the Field
2017 (Spring) EPS 50: The Planet Earth
2017 (Spring) EPS 290: Graduate seminar
focused on Earth History and Geobiology
- 2016 (Fall) EPS 101: Field Geology and Digital Mapping
2016 (Fall) EPS 290: Graduate seminar
focused on Essentials of Paleomagnetism
- 2016 (Spring) EPS 115: Stratigraphy and Earth History
2015 (Fall) EPS 290: Graduate seminar
focused on Effective Computation in Physics: Field Guide to Research with Python
- 2015 (Fall) EPS 101: Field Geology and Digital Mapping
2015 (Spring) EPS 255: Advanced Topics in Earth and Planetary Science
2015 (Spring) EPS 115: Stratigraphy and Earth History
2014 (Fall) EPS 255: Advanced Topics in Earth and Planetary Science
2014 (Fall) EPS 101: Field Geology and Digital Mapping
2014 (Spring) EPS 255: Advanced Topics in Earth and Planetary Science
2014 (Spring) EPS 101: Field Geology and Digital Mapping
2013 (Fall) EPS 255: Advanced Topics in Earth and Planetary Science
2011 (Fall) Sedimentology and Stratigraphy (Carleton College)

Teaching related awards and professional development

Awarded Berkeley Collegium Grant in 2015 for “Narrowing the Gap Between Teaching and Research”

Participant in UC Berkeley’s 2013-2014 Teaching Excellence Colloquium

Participant in the National Association of Geoscience Teachers 2013 “Early Career Geoscience Faculty: Teaching, Research, and Managing Your Career” workshop

Participant in Princeton University’s Teaching Transcript Program and associated pedagogical workshops