

# Junle Jiang

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## RESEARCH INTERESTS

I am interested in the dynamic processes in the Earth's crust and strive to understand their mechanisms, predictability, and societal impacts, with the ultimate goals to improve the assessment and mitigation of geo-hazards and safe, sustainable exploration of geo-energy. My current research is focused on microseismicity, large earthquakes, and crustal deformation due to tectonic and human activities over timescales from seconds to centuries, through integrating laboratory-based physical models and geophysical observations, in particular from Global Navigation Satellite System (GNSS) and Interferometric Synthetic Aperture Radar (InSAR).

## EDUCATION

Caltech, Pasadena, CA, USA	Geophysics	<i>Ph.D.</i> , 2016
Caltech, Pasadena, CA, USA	Computational Science and Engineering	<i>Ph.D. Minor</i> , 2014
Caltech, Pasadena, CA, USA	Geophysics	<i>M.Sc.</i> , 2011
Peking University, Beijing, China	Physics	<i>B.Sc.</i> , 2009

## APPOINTMENTS

Assistant Professor, School of Geosciences, University of Oklahoma	2020/08–present
Postdoctoral Associate, Cornell University	2018/06–2020/07
Green Postdoctoral Scholar, Scripps Institution of Oceanography, UC San Diego	2016/02–2018/05
Research and Teaching Assistant, Seismological Laboratory, Caltech	2009/09–2015/12

## PHD THESIS

**Jiang, J.** (2016), Probabilistic Imaging and Dynamic Modeling of Earthquake Source Processes, California Institute of Technology. [doi:10.7907/Z9639MQC](https://doi.org/10.7907/Z9639MQC). (Advisors: M. Simons & N. Lapusta)

## REFEREED PUBLICATIONS

- Jiang, J.**, Erickson, B., Lambert, V., Ampuero, J.-P., Ando, R., Barbot, S., Cattania, C., Dal Zilio, L., Duan, B., Dunham, E., Gabriel, A.-A., Lapusta, N., Li, D., Li, M., Liu, D., Liu, D., Liu, Y., Ozawa, S., Pranger, C., van Dinther, Y., Community-driven code comparisons for three-dimensional dynamic modeling of sequences of earthquakes and aseismic slip (SEAS), in press, *JGR*. Preprint: [doi:10.1002/essoar.10508582.2](https://doi.org/10.1002/essoar.10508582.2).
- Jiang, J.**, Bock, Y., and Klein, E. (2021). Coevolving early afterslip and aftershock signatures of a San Andreas fault rupture, *Science Advances*, 7, [doi:10.1126/sciadv.abc1606](https://doi.org/10.1126/sciadv.abc1606). Media Coverage: [OU News](#).
- Jiang, J.** & Lohman, R. B. (2020). Coherence-guided InSAR deformation analysis in the presence of ongoing land surface changes in the Imperial Valley, California. *Remote Sens. Environ.*, 112160, [doi:10.1016/j.rse.2020.112160](https://doi.org/10.1016/j.rse.2020.112160).
- Erickson, B.\*, **Jiang, J.**\*, Barall, M., Lapusta, N., Dunham, E. M., Harris, R., Abrahams, L., Allison, K., Ampuero, J.-P., Barbot, S., Cattania, C., Elbanna, A., Fialko, Y., Idini, B., Kozdon, J., Lambert, V., Liu, Y., Luo, Y., Ma, X., Segall, P., Shi, P., and Wei, M. (2020). The community code verification exercise for simulating sequences of earthquakes and aseismic slip (SEAS), *Seismo. Res. Lett.*, 91(2A), 874–890, [doi:10.1785/0220190248](https://doi.org/10.1785/0220190248). (\*equal contributions)

5. Tymofyeyeva, E., Fialko, Y., **Jiang, J.**, Xu, X., Sandwell, D., Bilham, R., Rockwell, T. K., Blanton, C., Burkett, F., Gontz, A., and Moafipoor, S. (2019). Slow slip event on the southern San Andreas fault triggered by the 2017 Mw8.2 Chiapas (Mexico) earthquake. *J. Geophys. Res. Solid Earth*, 124, [doi:10.1029/2018JB016765](https://doi.org/10.1029/2018JB016765). Media Coverage: [EOS Research Spotlight](#).
6. Xu, X., Ward, L., **Jiang, J.**, Smith-Konter, B., Tymofyeyeva, E., Lindsey, E., Sylvester, A. G., and Sandwell, D. T. (2018). Surface creep rate of the Southern San Andreas Fault modulated by stress perturbations from nearby large events, *Geophys. Res. Lett.*, 45, 10259–10268, [doi:10.1029/2018GL080137](https://doi.org/10.1029/2018GL080137).
7. Gombert, B., Duputel, Z., Jolivet, R., Simons, M., **Jiang, J.**, Liang, C., Fielding, E. J., and Rivera, L. (2018). Strain budget of the Ecuador–Colombia subduction zone: A stochastic view, *Earth Planet. Sci. Lett.*, 498, 288–299, [doi:10.1016/j.epsl.2018.06.046](https://doi.org/10.1016/j.epsl.2018.06.046).
8. Fan, W., Bassett, D., **Jiang, J.**, Shearer, P. M., and Ji, C. (2017). Rupture evolution of the 2006 Java tsunami earthquake and the possible role of splay faults, *Tectonophysics*, 721, 143–150, [doi:10.1016/j.tecto.2017.10.003](https://doi.org/10.1016/j.tecto.2017.10.003).
9. Michel, S., Avouac, J.-P., Lapusta, N., and **Jiang, J.** (2017). Pulse-like partial ruptures and high-frequency radiation at creeping-locked transition during megathrust earthquakes, *Geophys. Res. Lett.*, 44, 8345–8351, [doi:10.1002/2017GL074725](https://doi.org/10.1002/2017GL074725).
10. **Jiang, J.** and Lapusta, N. (2017). Connecting depth limits of interseismic locking, microseismicity, and large earthquakes in models of long-term fault slip, *J. Geophys. Res. Solid Earth*, 122, 6491–6523, [doi:10.1002/2017JB014030](https://doi.org/10.1002/2017JB014030).
11. Yue, H., Simons, M., Duputel, Z., **Jiang, J.**, Fielding, E., Liang, C., Owen, S., Moore, A., Riel, B., Ampuero, J. P., and Samsonov, S. V. (2016). Depth varying rupture properties during the 2015 Mw 7.8 Gorkha (Nepal) earthquake, *Tectonophysics*, 714–715, 44–54, [doi:10.1016/j.tecto.2016.07.005](https://doi.org/10.1016/j.tecto.2016.07.005).
12. **Jiang, J.** and Simons, M. (2016). Probabilistic imaging of tsunamigenic seafloor deformation during the 2011 Tohoku-oki Earthquake, *J. Geophys. Res. Solid Earth*, 121, 9050–9076, [doi:10.1002/2016JB013760](https://doi.org/10.1002/2016JB013760). Media Coverage: [EOS Research Spotlight](#).
13. **Jiang, J.** and Fialko, Y. (2016). Reconciling seismicity and geodetic locking depths on the Anza section of the San Jacinto fault, *Geophys. Res. Lett.*, 43, 10663–10671, [doi:10.1002/2016GL071113](https://doi.org/10.1002/2016GL071113).
14. Bletery, Q., Sladen, A., **Jiang, J.**, and Simons, M. (2016). A Bayesian source model for the 2004 great Sumatra-Andaman earthquake, *J. Geophys. Res. Solid Earth*, 121, 5116–5135, [doi:10.1002/2016JB012911](https://doi.org/10.1002/2016JB012911).
15. **Jiang, J.** and Lapusta, N. (2016). Deeper penetration of large earthquakes on seismically quiescent faults, *Science*, 352(6291), 1293–1297, [doi:10.1126/science.aaf1496](https://doi.org/10.1126/science.aaf1496). Media Coverage: [New Yorker](#), [Phys.org](#).
16. Duputel, Z., **Jiang, J.**, Jolivet, R., Simons, M., Rivera, L., Ampuero, J.-P., Riel, B., Owen, S. E., Moore, A. W., Samsonov, S. V., Culaciati, F. O., and Minson, S. E. (2015). The Iquique earthquake sequence of April 2014: Bayesian modeling accounting for prediction uncertainty, *Geophys. Res. Lett.*, 42, 7949–7957, [doi:10.1002/2015GL065402](https://doi.org/10.1002/2015GL065402).
17. Bletery, Q., Sladen, A., Delouis, B., Vallée, M., Nocquet, J.-M., Rolland, L., and **Jiang, J.** (2014). A detailed source model for the  $M_w$  9.0 Tohoku-Oki earthquake reconciling geodesy, seismology, and tsunami records, *J. Geophys. Res. Solid Earth*, 119, 7636–7653, [doi:10.1002/2014JB011261](https://doi.org/10.1002/2014JB011261).
18. Minson, S. E., Simons, M., Beck, J. L., Ortega, F., **Jiang, J.**, Owen, S. E., Moore, A. W., Inbal, A., and Sladen, A. (2014). Bayesian inversion for finite fault earthquake source models - II: the 2011 great Tohoku-oki, Japan earthquake, *Geophys. J. Int.*, 198(2), 922–940. [doi:10.1093/gji/ggu170](https://doi.org/10.1093/gji/ggu170).
19. Wei, S., Graves, R., Helmberger, D. V., Avouac, J.-P., and **Jiang, J.** (2012). Sources of shaking and flooding during the Tohoku-Oki earthquake: A mixture of rupture styles, *Earth Planet. Sci. Lett.*, 333-334(C), 91–100, [doi:10.1016/j.epsl.2012.04.006](https://doi.org/10.1016/j.epsl.2012.04.006).
20. Simons, M., Minson, S. E., Sladen, A., Ortega, F., **Jiang, J.**, Owen, S. E., Meng, L., Ampuero, J. P., Wei, S., Chu, R., Helmberger, D. V., Kanamori, H., Hetland, E., Moore, A. W., and Webb, F. H. (2011). The 2011 magnitude 9.0 Tohoku-oki earthquake: Mosaicking the megathrust from seconds to centuries, *Science*, 332(6036), 1421–1425, [doi:10.1126/science.1206731](https://doi.org/10.1126/science.1206731).

## DATASETS

1. **Jiang, J.**, Erickson, B. et al. (2021). Simulation Data for "Community-Driven Code Comparisons for Three-Dimensional Dynamic Modeling of Sequences of Earthquakes and Aseismic Slip (SEAS)" [Data set]. In *Journal of Geophysical Research*. Zenodo. <https://doi.org/10.5281/zenodo.6299674>.
2. Materna, K., Barbour, A., **Jiang, J.**, and Eneva (2022), Geodetic displacement data near North Brawley Geothermal Field, 2009-2019. Zenodo. <https://doi.org/10.5281/zenodo.5949377>.
3. **Jiang, J.**, Bock, Y., and Klein, E. (2021). Data for "Coevolving early afterslip and aftershock signatures of a San Andreas fault rupture" [Data set]. In *Science Advances*. Zenodo. <https://doi.org/10.5281/zenodo.4278477>.
4. **Jiang, J.**, and Lohman, R. (2020). Data for "Coherence-guided InSAR deformation analysis in the presence of ongoing land surface change in the Imperial Valley, California" [Data set]. In *Remote Sensing of Environment*. Zenodo. <https://doi.org/10.5281/zenodo.3911193>.

## PUBLICATIONS IN PROGRESS

1. Materna, K., Barbour, A., **Jiang, J.**, and Eneva, M., Detection of aseismic slip and poroelastic reservoir deformation at the North Brawley Geothermal Field from 2009-2019, in review at *JGR*.
2. Erickson, B. A., **Jiang, J.**, Lambert, V. R., Abdelmeguid, M., Almquist, M., Ampuero, J., Ando, R., Barbot, S. D., Cattania, C., Chen, A., Dal Zilio, L., Dunham, E. M., Elbanna, A. E., Gabriel, A., Harvey, T., Huang, Y., Kaneko, Y., Kozdon, J. E., Lapusta, N., Li, D., Li, M., Liang, C., Liu, Y., Ozawa, S., Pranger, C., Segall, P., Sun, Y., Thakur, P., Uphoff, C., van Dinther, Y., & Yang, Y., Incorporating Full Elastodynamics and Dipping Fault Geometries in Community Code Verification Exercises for Simulations of Earthquake Sequences and Aseismic Slip (SEAS), in preparation for *BSSA*.
3. **Jiang, J.** Simons, M., Liang, C., and Fattahi, H., Bayesian inference of Maule megathrust earthquake processes I: Quantifying uncertainty, resolution, and information content in multi-dataset inversions, in preparation for *JGR*.
4. **Jiang, J.** Simons, M. et al., Bayesian inference of Maule megathrust earthquake processes II: Connecting 3D subduction zone structure, spatiotemporal source evolution, in preparation for *JGR*.
5. **Jiang, J.** and Lapusta, N., Influence of depth-dependent fault permeability and shear zone on earthquake scaling and sequence dynamics, in preparation for *EPSL*.
6. **Jiang, J.** and Lapusta, N., Characteristics of dynamic rupture sequences and stress redistribution on faults with heterogeneous compressive strength, in preparation for *GJI*.

## INVITED TALK

Department of Geosciences Seminar, University of Montana	2022/01
Earthquake Physics Seminar, University of Southern California	2021/11
Berkeley Seismology Laboratory Seminar, University of California, Berkeley	2021/10
GeoSeminar, Department of Geosciences, University of Tulsa	2021/09
Earthquake Science Center Seminar, United States Geological Survey	2021/07
School of Geosciences, University of Oklahoma	2020/03
Andes Seminar, Department of Earth and Atmospheric Sciences, Cornell University	2019/09
Department of Earth, Atmospheric and Planetary Sciences, Massachusetts Institute of Technology	2019/03
Andes Seminar, Department of Earth and Atmospheric Sciences, Cornell University	2018/09
Department of Geology and Geophysics, Woods Hole Oceanographic Institution	2018/03
Department of Earth, Planetary, and Space Sciences, University of California Los Angeles	2017/03
Geophysics Seminar, IGPP, Scripps Institution of Oceanography, University of California, San Diego	2016/03

## SELECTED CONFERENCE PRESENTATIONS

1. **Jiang, J.**, Erickson, B., Lambert, V., Abdelmeguid, M., Almquist, M., Ampuero, J.-P., Ando, R. Barbot, S., Cattania, C., Chen, A., Dal Zilio, L., Duan, B., Dunham, E. M., Elbanna, A. E., Gabriel, A.-A., Harvey, T., Huang, Y., Kaneko, Y., Kozdon, J. E., Lapusta, N., Li, D., Li, M., Liang, C., Liu, D., Liu, Y., Ozawa, S., Pranger, C., Segall, P., Sun, Y., Thakur, P., Uphoff, C., van Dinther, Y., Yang, Y. (2021, December). Community Code Verification Exercises for Simulations of Earthquake Sequences and Aseismic Slip (SEAS): 3D Effects, Fully Dynamic Ruptures, and Dipping Fault Geometries. In *AGU Fall Meeting 2021*. AGU. (Poster presentation)
2. Eiden, E., Devlin, K., Burgi, P., MacQueen, P., Headlam, C., Brill, K.A., Carrillo, C.M., Hamilton, D.S.S., **Jiang, J.**, Barcheck, G. and Hitchcock, P., 2020, December. The IDEEAS Working Group at Cornell University: A New Framework of Collective Leadership for Promoting Justice, Equity, Diversity, and Inclusion in the Geosciences. In *AGU Fall Meeting Abstracts* (Vol. 2020, pp. ED015-0008) (Poster Presentation). Preprint: [doi:10.1002/essoar.10505326.1](https://doi.org/10.1002/essoar.10505326.1).
3. **Jiang, J.**, and Lohman, R. B., Characterizing tectonic and anthropogenic ground deformation history in the Imperial Valley, California, using Sentinel-1 InSAR time series, AGU Fall Meeting, San Francisco, CA, Dec. 2019 (Oral Presentation).
4. **Jiang, J.** (2019), Perspectives from the SCEC Sequences of Earthquakes and Aseismic Slip (SEAS) Project, SCEC workshop on “How Physics-Based Earthquake Simulators Might Help Improve Earthquake Forecasts,” June 18, 2019 (Invited Oral Presentation).
5. **Jiang, J.**, Bock, Y., and E. Klein, Imaging slip evolution on the San Andreas fault due to the 2004 Parkfield earthquake, AGU Fall Meeting, Washington D.C., Dec. 2018 (Oral Presentation).
6. **Jiang, J.**, and Erickson, B. A. Advancing Simulations of Sequences of Earthquakes and Aseismic Slip (SEAS). SCEC Annual Meeting, Sept. 2018 (Invited Oral Presentation).
7. **Jiang, J.** and Fialko, Y., Mechanisms of unsteady shallow creep on major crustal faults, AGU Fall Meeting, New Orleans, LA, Dec. 2017 (Oral Presentation).
8. **Jiang, J.** and Simons, M., Multiscale probabilistic imaging of tsunamigenic seafloor deformation during the 2011 Tohoku-oki earthquake, SSA Fall Meeting, Denver, CO, Apr. 2017 (Invited Oral Presentation).
9. Kirschvink, J. and **Jiang, J.**, Potential Seismic and Tsunami Hazard from the Palau Trench, as viewed from molluscan grazing notches in uplifted coral atolls, GSA Annual Meeting, Oct. 2014 (Oral Presentation).
10. **Jiang, J.**, Lapusta, N. and Noda, H., Re-evaluating the seismogenic potential of creeping fault regions: implications from models with rate-and-state friction and enhanced coseismic weakening, AGU Fall Meeting, San Francisco, CA, USA, Dec. 2013 (Invited Oral Presentation).

## FUNDED RESEARCH AND WORKSHOPS

### Current & Past Research Grants

- PI**, “Distinguishing between tectonic and anthropogenic processes in the Salton Sea Geothermal Field,” Southern California Earthquake Center (SCEC), **\$27K** 2020/02–2022/01
- PI**, “Integrated Simulation of Dynamic Earthquakes and Crustal Deformation,” Extreme Science and Engineering Discovery Environment (XSEDE), **120K computing units** 2017/09–2021/06
- PI**, “Advancing Simulations of Sequences of Earthquakes and Aseismic Slip (SEAS),” Southern California Earthquake Center (SCEC), **\$45K/\$50K/\$56K/56K** in each year 2018/02–2022/01
- Co-PI**, “Mechanisms of unsteady shallow creep on major crustal faults,” Southern California Earthquake Center (SCEC), **\$28K** 2018/02–2019/01
- Co-PI**, “Microseismicity, geodetic coupling, and earthquake variability on heterogeneous faults: A case study of the Anza section of the San Jacinto Fault,” SCEC, **\$28K** 2017/02–2018/01



**Co-PI**, “Reconciling seismic and geodetic locking depths on the Anza segment of the San Jacinto Fault.” SCEC, **\$28K**  
2016/02–2017/01

### **Pending Research Grants**

**Co-PI**, “Monitoring Hillslope Dynamics Using SAR Time Series and Machine Learning,” National Aeronautics and Space Administration (NASA), **\$280K** 2022/01–2024/12

**PI**, “Numerical modeling of dynamic fracture and deformation in dissimilar fault rocks,” American Chemical Society Petroleum Research Fund, **\$110K** 2022/09–2024/08

**PI**, “Geodetic imaging of earthquakes, fault creep, deformation, and coastal changes at the southern Salton Sea over two decades,” SCEC, **\$28K** 2022/02–2023/01

**PI**, “Advancing Simulations of Sequences of Earthquakes and Aseismic Slip (SEAS),” SCEC, **\$56K** 2022/02–2023/01

**PI**, “Constraining rupture and relaxation dynamics of crustal fault roots with geodetic and microseismic observations,” National Science Foundation (NSF) Geophysics Program, **\$306K** 2022/07–2025/06

### **Workshop Grants**

**PI** (w/ B. Erickson), “Workshop for Advancing Simulations of Sequences of Earthquakes and Aseismic Slip (SEAS) — Fluids, 3D modeling, and Future Directions,” SCEC, **\$12K**, [workshop website](#). 2021/11/02

**PI** (w/ B. Erickson), “Workshop for Advancing Simulations of Sequences of Earthquakes and Aseismic Slip (SEAS) — Free-Surface effects in 2D/3D models,” SCEC, **\$12K**, [workshop website](#). 2020/10/30

**PI** (w/ B. Erickson), “Workshop for Advancing Simulations of Sequences of Earthquakes and Aseismic Slip (SEAS) — Full Dynamics and 3D Effects,” SCEC, **\$12K**, [workshop website](#). 2020/01/09

**PI** (w/ B. Erickson), “Workshop for Advancing Simulations of Sequences of Earthquakes and Aseismic Slip (SEAS) — Exploring Complexity and Resolution,” SCEC, **\$12K**, [workshop website](#). 2018/11/29

**PI** (w/ R. Harris, B. Erickson), “A Joint Workshop: Rupture Dynamics Code Validation and Comparing Simulations of Earthquake Sequences and Aseismic Slip,” SCEC, **\$18.5K**, [workshop website](#). 2018/04/23

### **HONORS AND AWARDS**

Green Postdoctoral Fellowship, IGPP, SIO, UCSD 2016–2018

Graduate Student Office Leadership Award, Caltech 2016

Demetriades-Tsafka-Kokkalis Thesis Prize in Seismo-Engineering, Prediction, and Protection, Caltech 2016

Chinese Government Award for Outstanding Self-Financed Students Abroad 2015

Outstanding Student Paper Award, Tectonophysics Section, American Geophysical Union 2015

Honor for Excellent Graduate, Peking University 2009

Petro China Scholarship, Peking University 2007

Dean’s List Award for Academic Excellence, Hong Kong University of Science and Technology 2007

Cannon Scholarship, Peking University 2006

### **TEACHING EXPERIENCE**

#### **Instructor, University of Oklahoma**

GPHY4553 Introduction to Seismology Spring 2022

GPHY5970 Geophysical Journal Seminar Fall 2021

GPHY6970 Machine Learning in Geosciences (w/ H. Bedle & M. Pranter) Fall 2021

GPHY5970 Remote Sensing for Crustal Geophysics Fall 2021

GPHY5920 Computational Geophysics Spring 2021

GPHY3440 Mentored Research Experience Spring 2021

GEOL1114 Physical Geology for Scientists and Engineers Fall 2020/Spring 2022

**Guest Lecturer, Cornell University**

EAS2550 Satellite-Based Remote Sensing — Rowena Lohman	Spring 2019 & 2020
EAS7800 Earthquake Record Reading — Geoffrey Abers	Spring 2019
“Teaching & Learning in the Diverse Classroom” Course	Summer 2020

**Guest Lecturer, Scripps Institution of Oceanography**

SIOG237 Space Geodesy — Yuri Fialko & David Sandwell	Spring 2017 & 2018
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**Graduate Teaching Assistant, California Institute of Technology**

Ge11d/102 Introduction to Geophysics — Robert Clayton & Mike Gurnis	Spring 2014
Ge263 Computational Geophysics — Jean-Paul Ampuero, Robert Clayton & Mike Gurnis	Fall 2012
Ge161 Plate Tectonics — Joann Stock	Fall 2011
Ae/ME/Ge266 Dynamic Rupture and Frictional Faulting — Nadia Lapusta	Spring 2011

**STUDENT ADVISING/MENTORING**

**Thesis/Dissertation Advisor** — Segun Steven Bodunde (PhD, 2021/08–present); Haoyu Li (MS, 2021/08–present); Ganiyat Shodunke (PhD, 2021/01–present)

**Thesis Committee Member** — Rachel Neher (PhD, 2022/02–present); Jiewen Zhang (PhD, 2020/10–2021/06)

**Research Mentor** — Gillian Quiros (UCSD Regents Scholar, 2017/09–2018/05); Xander Zheng (Caltech SURF, Summer 2012); Patrick Ferchaud (École Polytechnique, Summer 2011)

**FIELD EXPERIENCE**

Campaign GPS survey for the San Jacinto fault, Anza, CA, PI: Y. Fialko, UCSD/SIO	Sept. 2016/2017/2018
Rock sample collection and structure mapping of rock islands, Palau, PI: J. Kirschvink, Caltech	Mar. 2017
Seismic deployment at Anza, California, PI: F. Vernon, UCSD/SIO	Apr. 2016
Campaign GPS survey across central Taiwan, PI: S.-B. Yu, Academia Sinica	Dec. 2011
Seismic survey, Salton Seismic Imaging Project (SSIP), PI: J. Stock, Caltech	Mar. 2011

**PROFESSIONAL SERVICE****University of Oklahoma (OU)/Mewbourne College of Earth and Energy (MCEE)/School of Geosciences(SOG)**

Member, MCEE Diversity, Equity, Inclusion (DEI) Council	2021–present
Member, OU Data Institute for Societal Challenges (DISC)	2021–present
Member, OU Reflection Seismology Centennial Committee	2021–present
Member, SOG Student Awards Committee	2021–present
Member, SOG Computer Lab 1010 Committee	2022–present
Member, SOG Teaching Evaluation Committee	2021–present
Member, SOG Graduate Admission & Affairs Committee	2020–present
Member, SOG Computing Committee	2020–present
Organizer, SOG Virtual Open House for Prospective Graduate Students	Fall 2021
Member and DEI Advocate, SOG Environmental Geophysics Search Committee	Spring 2021
Member, SOG Petroleum Geosciences Vision Committee	Fall 2020
Editor, SOG Application to AGU Bridge Program Partnership	Fall 2020

**Cornell University, Department of Earth and Atmospheric Sciences**

Founding Member, Inclusion, Diversity, and Equity in Earth and Atmospheric Sciences (IDEEAS)	2019–2020
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Awardee, Postdoctoral Leadership Program, Cornell University 2018–2019

### **Professional and Synergistic Activities**

Reviewer for proposals: NSF (ad hoc & panel), DFG (Deutsche Forschungsgemeinschaft; ad hoc), NASA (panel), and USGS (panel).

Reviewer for journals: Geophysical Research Letters (1), Journal of Geophysical Research - Solid Earth (14), Geophysical Journal International (6), Earth and Planetary Science Letters (1), Bulletin of the Seismological Society of America (1), Seismological Research Letters (2), Earth Planets and Space (2), Earth and Space Science (1), Pure and Applied Geophysics (8), Tectonophysics (2), Remote Sensing (22), Geosciences (2), Energies (8), Sensors (3), Earthquake Science (1), Applied Sciences (5), etc.

Chair, “State-of-the-Art Observations and Modeling of Earthquake Source Processes” Oral Sessions at AGU Annual Fall Meeting, New Orleans, LO Dec. 2021

Co-Leader, Community Code Verification Initiative for Numerical Simulations of SEAS (Sequences of Earthquakes and Aseismic Slip), Southern California Earthquake Center (SCEC) 2017–present

Institutional representative, Southern California Earthquake Center (SCEC) 2022–present

Institutional representative, Computational Infrastructure of Geodynamics (CIG) 2022–present

Institutional representative, UNAVCO WInSAR 2021–present

Liaison/Judge, Outstanding Student Paper Award (OSPA) of AGU Annual Meeting 2017–2021

Organizer, Geophysics Seminar, IGPP/SIO/UCSD 2016–2018

Organizer, Dix Seismological Laboratory Seminar, Caltech 2011–2012

Event Organizer and Speaker, International Student Programs & Center for Diversity, Caltech 2011–2015

Member, Board of Directors, Graduate Student Council, Caltech 2011–2014

- Option Representative for Geophysics (2011–2013); Under-Represented Student Advocate (2011–2013); Treasurer (2012–2013); Director at Large (2013–2014)

Executive Committee, Chinese Students and Scholars Association, Caltech 2010–2012

- Director for Sports and Outdoor Activities (2010–2011); President (2011–2012)

### **EDUCATION OUTREACH**

Seminar speaker, Science Museum Oklahoma, Oklahoma City, OK 2021

Seminar speaker, Birch Aquarium, Scripps Institution of Oceanography, UCSD 2016–2017

Tour leader for K-12 students, Tectonic Observatory & Seismological Laboratory, Caltech 2010–2015

Invited speaker, Huntington Middle School, San Marino, CA 2011–2012

Teaching assistant and speaker, Blair High School, Pasadena, CA 2010–2011

### **PROFESSIONAL SOCIETY MEMBERSHIP**

Southern California Earthquake Center (SCEC) 2009–present

American Geophysical Union (AGU) 2009–present

Seismological Society of America (SSA) 2012–present

American Association for the Advancement of Science (AAAS) 2012–present

Society of Exploration Geophysics (SEG) 2020–present

Geothermal Research Council (GRC) 2020–present

National Association of Geoscience Teachers (NAGT) 2020–present

Asian Americans and Pacific Islanders in Geosciences (AAPIIG) 2020–present