

***POSITIONS HELD***

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- 9/1/2025–Current      **Paros Assistant Professor of Geohazards & Climate Mitigation**  
Columbia Climate School  
Leader of the River Origins, Evolution, & Response Lab (ROER Lab)
- 9/2023–8/2025      **Postdoctoral Research Scientist, *Lamont Fellow***  
Lamont-Doherty Earth Observatory, Columbia University  
Advisors: Suzana Camargo, Michael Steckler
- 8/2022–7/2023      **Postdoctoral Scholar**  
UC Santa Barbara Earth Research Institute  
Advisors: Vamsi Ganti
- 1/2022–6/2022      **Scientist**  
Exponent Engineering and Scientific Consulting  
Practice: Environmental & Earth Sciences
- 11/2019–10/2021      **Postdoctoral Associate**  
University of Minnesota St. Anthony Falls Laboratory  
Advisors: Chris Paola, Elisabeth Steel
- 6/2014–9/2014      **Research Scientist**  
Caltech Earth Surface Dynamics Laboratory  
Advisor: Michael Lamb
- 9/2012–6/2014      **Undergraduate Research Assistant**  
UCLA Department of Earth & Space Sciences  
Advisors: Gilles Peltzer, Jonathan Aurnou
- 6/2012 – 9/2012      **Undergraduate Research Intern**  
United States Geological Survey (USGS) Menlo Park  
Advisor: Walter Mooney

***EDUCATION***

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- 2014 – 2019      **California Institute of Technology**  
PhD in Geology, *Mechanics of river avulsions on lowland river deltas*  
Defended October 21, 2019; Received at Graduation Ceremony June 12, 2020  
Thesis Advisor: Michael Lamb
- 2010 – 2014      **University of California, Los Angeles**  
BS in Applied Geophysics, Departmental Highest Honors  
Undergraduate Research Advisors: Jonathan Aurnou, Gilles Peltzer

***HONORS & AWARDS***

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- 2025      **Grant Awarded: NSF GEO/EAR Water, Landscape, & Critical Zone Processes**  
Collaborative Research: Disentangling Subsidence - Integrated observations and modeling of vertical land-surface dynamics in the Ganges-Brahmaputra Delta  
Co-PI

2023–2025	<b>Lamont Postdoctoral Fellowship in Earth, Environmental, and Climate Sciences</b> <i>Predicting coastal resilience &amp; flood hazards on densely populated coastal zones in the twenty-first century</i> Lamont-Doherty Earth Observatory, Columbia University
2023	<b>Grant Awarded: NASA Commercial Smallsat Data Acquisition Program</b> <b>Conceptualization (50%) &amp; Writing (50%)</b> for <i>River response to climate change: Insights from high-resolution remote sensing data in High-Mountain Asia</i> Principal Investigators: Vamsi Ganti <i>*Unable to serve as a PI as a Postdoctoral Scholar</i>
2023	<b>Grant Awarded: NSF EAR-Climate</b> <b>Conceptualization (33%) &amp; Writing (33%)</b> for <i>NSF EAR-Climate: Global Survey of Multiscale River Mobility &amp; its Response to Climate Change and Human Interference</i> Principal Investigator: Vamsi Ganti (NSF EAR-2310740) <i>*Unable to serve as a PI as a Postdoctoral Scholar</i>
2016 – 2020	<b>Graduate Fellowship in Sustainability Science</b> Resnick Sustainability Institute at the California Institute of Technology
2018	<b>Best Poster Award</b> Community Surface Dynamics Modeling System Meeting
2018	<b>Early Career Spotlight</b> American Geophysical Union Earth and Planetary Surface Processes (AGU EPSP) <a href="https://connect.agu.org/epsp/spotlight/april-2018">https://connect.agu.org/epsp/spotlight/april-2018</a>
2015	<b>George &amp; Virginia Eaton Fellowship</b> California Institute of Technology
2015	<b>Graduate Research Fellowship Honorable Mention</b> National Science Foundation
2014	<b>John &amp; Frances Handin Scholarship</b> University of California, Los Angeles
2013	<b>Clarence A. Hall Summer Field Scholarship</b> University of California, Los Angeles
2012	<b>USGS Internship Certificate of Outstanding Achievement</b> United States Geological Survey, Menlo Park, CA

## **PUBLICATIONS**

*Research Mentees are denoted by \**

In Preparation	<b>Chadwick AJ</b> , Steckler S, Wilson CA, Rana MM, Akter S, Bhuiyan AH, Camargo SJ, Larochele S, Mahmud SS, Tanvir AA, Ahmed Z, Mim A. Future projections of compaction-induced subsidence on the Ganges-Brahmaputra Delta. In Preparation.
In Preparation	<b>Chadwick AJ</b> , Greenberg E, Ganti V. Multi-thread planform diversity originates from competition between migration and floodplain development on mid-channel bars. In Preparation.

In Preparation **Chadwick AJ**, Steckler S, Wilson CA, Rana MM, Akter S, Bhuiyan AH, Camargo SJ, Larochele S, Mahmud SS, Tanvir AA, Ahmed Z, Mim A. A model for predicting subsidence hazards on deltas in the twenty-first century. In Preparation.

2025 **Chadwick AJ**, Greenberg E, Ganti V. River planforms originate from (im)balance between bank erosion and bar accretion. *Science*, 389(6756), 146-150.  
Selected for Science Cover Feature: <https://www.science.org/toc/science/389/6756>

2024 Greenberg E, **Chadwick AJ**, Li GK, & Ganti V. Quantifying channel mobility and floodplain reworking timescales across river planform morphologies. *Geophysical Research Letters* 51.12 (e2024GL108537).

2024 Wang Y, Limaye AB, & **Chadwick AJ**. Topography-based particle image velocimetry of braided channel initiation. *Water Resources Research* 60.4 (e2023WR035229).

2023 Greenberg E, **Chadwick AJ**, & Ganti V. A generalized area-based framework to quantify river mobility from remotely sensed imagery. *Journal of Geophysical Research: Earth Surface* 128 (e2023JF007189).

2023 **Chadwick AJ**, Greenberg E, & Ganti V. Remote sensing of riverbank migration using particle image velocimetry. *Journal of Geophysical Research: Earth Surface* 128 (e2023JF007177).

2023 Rowland JC, Schwenk JP, Shelef E, Muss J, Ahrens D, Stauffer S, Pilliouras A, Crosby B, **Chadwick AJ**, Douglas MM, Kemeny PC, Lamb MP, Li GK, & Vulis L. Scale-dependent influence of permafrost on riverbank erosion rates. *Journal of Geophysical Research: Earth Surface* 128 (e2023JF007101).

2023 Xu Z, Khan MR, Ahmed KM, Zahid A, Hariharan J, Passalacqua P, Steel E, **Chadwick AJ**, Paola C, Paldor A, & Michael HA. Predicting Subsurface Architecture from Surface Channel Networks in The Bengal Delta. *Journal of Geophysical Research: Earth Surface* 128 (e2022JF006775).

2023 Kemeny PC, Li GK, Douglas MM, Berelson W, **Chadwick AJ**, Dalleska NF, Lamb MP, Larsen W, Magyar JS, Rollins NE, Rowland J, Smith I, Torres MA, Webb SM, Fischer WW, & West AJ. Arctic Permafrost Thawing Enhances Sulfide Oxidation. *Global Biogeochemical Cycles* 37 (e2022GB007644).

2022 **Chadwick AJ**, Steele S\*, Silvestre J\*, & Lamb MP. More extensive land loss expected on coastal deltas due to rivers jumping course during sea-level rise. *Proceedings of the National Academy of Sciences* 119(31).

2022 **Chadwick AJ**, Steel E, Passalacqua P, & Paola C. Differential bank migration limits the lifespan and width of braided river threads. *Water Resources Research* 58(8).

2022 **Chadwick AJ**, Steele S\*, Silvestre J\*, & Lamb MP. Effect of sea-level change on river avulsions and stratigraphy for an experimental lowland delta. *Journal of Geophysical Research: Earth Surface* 127(7).

2022 **Chadwick AJ**, Steel E, Williams-Schaetzel RA\*, Passalacqua P, & Paola C. Channel migration in experimental river networks mapped by particle image velocimetry. *Journal of Geophysical Research: Earth Surface* 127.

2022 Brooke S, **Chadwick AJ**, Silvestre J\*, Lamb MP, Edmonds DA, & Ganti V. Where rivers jump course. *Science* 376(6596).

- 2022 Edmonds DA, **Chadwick AJ**, Lamb MP, Lorenzo-Trueba J, Murray AB, Nardin W, Salter G, & Shaw JB. Morphodynamic Modeling of River-Dominated Deltas: A Review and Future Perspectives. in *Treatise on Geomorphology* 110–140.
- 2022 Steel E, Paola C, **Chadwick AJ**, Hariharan J, Passalacqua P, Xu Z, Michael HA, Brommecker H, & Hajek EA. Reconstructing subsurface sandbody connectivity from temporal evolution of surface networks. *Basin Research* 34, 1486–1506.
- 2022 Xu Z, Hariharan J, Passalacqua P, Steel E, **Chadwick AJ**, Paola C, Paldor A, & Michael HA. Effects of geologic setting on contaminant transport in deltaic aquifers. *Water Resources Research* 58.
- 2022 Hariharan J, Passalacqua P, Xu Z, Michael HA, Steel E, **Chadwick AJ**, Paola C, & Moodie AJ. Modeling the dynamic response of river deltas to sea-level rise acceleration. *Journal of Geophysical Research: Earth Surface* 127.
- 2022 Douglas MM, Li GK, Fischer WW, Rowland JC, Kemeny PC, West AJ, Schwenk J, Piliouras AP, **Chadwick AJ**, & Lamb MP. Organic carbon burial by river meandering partially offsets bank-erosion carbon fluxes in a discontinuous permafrost floodplain. *Earth Surface Dynamics* 10(3).
- 2021 **Chadwick AJ** & Lamb MP. Climate-change controls on river delta avulsion location and frequency. *Journal of Geophysical Research: Earth Surface* 126(6).
- 2021 Douglas MM, Lingappa UF, Lamb MP, Rowland JC, West AJ, Li G, Kemeny PC, **Chadwick AJ**, Piliouras AP, Schwenk J, & Fischer WW. Impact of river channel lateral migration on microbial communities across a discontinuous permafrost floodplain. *Applied and Environmental Microbiology* 87(20).
- 2020 **Chadwick AJ**, Lamb MP, Ganti V. Accelerated river avulsion frequency on lowland deltas due to sea-level rise. *Proceedings of the National Academy of Sciences* 117(30).
- 2020 Brooke S, Ganti V, **Chadwick AJ**, Lamb MP. Flood variability determines the location of lobe-scale avulsions on Deltas: Madagascar. *Geophysical Research Letters* 47(20).
- 2019 **Chadwick AJ**, Lamb MP, Moodie AJ, Parker G, Nitttrouer J. Origin of a preferential avulsion node on lowland river deltas. *Geophysical Research Letters* 46(8).
- 2019 Ganti V, Lamb MP, **Chadwick AJ**. Autogenic erosional surfaces in fluvio-deltaic stratigraphy from floods, avulsions, and backwater hydrodynamics. *Journal of Sedimentary Research* 89(8).
- 2019 Moodie AJ, Nitttrouer JA, Ma H, Carlson BN, **Chadwick AJ**, Lamb MP, Parker G. Modeling deltaic lobe-building cycles and channel avulsions for the Yellow River delta, China. *Journal of Geophysical Research: Earth Surface* 124(11).
- 2016 Ganti V, **Chadwick AJ**, Hassenruck-Gudipati HJ, Lamb MP. Avulsion cycles and their stratigraphic signature on an experimental backwater-controlled delta. *Journal of Geophysical Research: Earth Surface* 121(9).
- 2016 Ganti V, **Chadwick AJ**, Hassenruck-Gudipati HJ, Fuller BM, Lamb MP. Experimental river delta size set by multiple floods and backwater hydrodynamics. *Science Advances* 2(5).

- 2016 Shaw JB, Ayoub F, Jones CE, Lamb MP, Holt B, Wagner RW, Coffey T, **Chadwick AJ**, Mohrig D. Airborne radar imaging of subaqueous channel evolution in Wax Lake Delta, Louisiana, USA. *Geophysical Research Letters* 43(10).

## **SELECTED CONFERENCE PROCEEDINGS**

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- 2025 *Invited* **Chadwick, AJ.** River systems: their origins, evolution, & response to our rapidly changing world. Invited Talk, *Queens College Earth & Environmental Sciences Colloquium*, New York, NY.
- 2025 *Invited* **Chadwick, AJ.** Steckler S, Wilson CA, Rana MM, Akter S, Bhuiyan AH, Camargo SJ, Larochelle S, Mahmud SS, Tanvir AA, Ahmed Z, Mim A. Predicting cascading flood hazards on coastal deltas in the 21<sup>st</sup> century. Invited Talk, *GSA Connects 2025*, San Antonio, TX.
- 2025 *Invited* **Chadwick, AJ.** River systems: their origins, evolution, & response to our rapidly changing world. Invited Talk, *University of California Los Angeles Geography Department Seminar*, Los Angeles, CA.
- 2025 *Invited* **Chadwick, AJ.** River systems: their origins, evolution, & response to our rapidly changing world. Invited Talk, *University of Washington Department of Earth and Space Sciences Colloquium*, Seattle, WA.
- 2025 **Chadwick AJ,** Steckler S, Wilson CA, Rana MM, Akter S, Bhuiyan AH, Camargo SJ, Larochelle S, Mahmud SS, Tanvir AA, Ahmed Z, Mim A. Predicting cascading flood hazards on coastal deltas in the 21<sup>st</sup> century. Invited Talk, *Lamont 75<sup>th</sup> Anniversary Mini-Symposium: Earth Hazards*, New York, NY.
- 2024 **Chadwick AJ,** Steckler S, Wilson CA, Rana MM, Akter S, Bhuiyan AH, Camargo SJ, Larochelle S, Mahmud SS, Tanvir AA, Ahmed Z, Mim A. Future projections of compaction-induced subsidence on the Ganges-Brahmaputra Delta. Poster Presentation, *American Geophysical Union Fall Meeting*, Washington D.C.
- 2024 **Chadwick AJ,** Greenberg E, Ganti V. Multi-thread planform diversity originates from competition between migration and floodplain development on mid-channel bars. Oral Presentation, *American Geophysical Union Fall Meeting*, Washington D.C.
- 2024 *Invited* **Chadwick, AJ.** How do river deltas respond to sea-level rise? Invited Talk, *Vanderbilt Earth and Environmental Sciences Seminar*, Nashville, TN.
- 2024 **Chadwick AJ,** Larochelle S, Camargo SJ, Steckler MS. Predicting subsidence hazards on deltas in the 21<sup>st</sup> century. Oral presentation, *Deltas 2024 Symposium: Coastal River Deltas in a Changing World*. LSU Center for River Studies, Baton Rouge, LA.
- 2024 *Invited* **Chadwick, AJ.** River systems: their origins, evolution, & response to our rapidly changing world. Invited Talk, *University of California Los Angeles Earth, Planetary, and Space Sciences Department Colloquium*, Los Angeles, CA.
- 2023 JO-CREWSnet Team. Reinventing climate-change adaptation with the Jameel Observatory Climate Resilience Early Warning System Network (JO-CREWSnet). Highlight segment, *2023 United Nations Climate Change Conference (COP28)*, Expo City, Dubai.

- 2023 **Chadwick AJ**, Greenberg E, Ganti V. River channel patterns are driven by width (in)stability. Oral presentation, *American Geophysical Union Fall Meeting*, San Francisco, CA.
- 2023 **Chadwick AJ**, Greenberg E, Ganti V. Multi-thread channel morphologies driven by runaway widening. Oral presentation, *Southern California Geobiology & Geomorphology Symposium*, Santa Barbara, CA.
- 2022 **Chadwick AJ**, Steel E, Passalacqua P, Paola C. Differential bank migration limits the lifespan and width of braided river threads. Poster presentation, *4<sup>th</sup> Annual Southern California Geomorphology Symposium*, Irvine, CA.
- 2021 **Chadwick AJ**, Steel E, Passalacqua P, Paola C. Differential bank migration limits the lifespan and width of braided river threads. Poster presentation, *American Geophysical Union Fall Meeting*, New Orleans, LA.
- 2019 **Chadwick AJ**, Lamb MP. Climate-change controls on river delta avulsion location and frequency. Oral presentation, *American Geophysical Union Fall Meeting*, San Francisco, CA.
- 2018 **Chadwick AJ**, Silvestre J, Steele S, Lamb MP. How well is sea-level fall preserved in fluvio-deltaic stratigraphy? Oral presentation, *American Geophysical Union Fall Meeting*, Washington DC.
- 2018 **Chadwick AJ**, Steele S, Silvestre J, Lamb MP. How does river-channel shifting mediate land sustainability on drowning river deltas? Oral presentation, *Resnick Sustainability Institute Seminar Day*, Pasadena, CA.
- 2018 **Chadwick AJ**, Lamb MP. Prediction the location of avulsion hazards in the face of changing flood regimes. Poster presentation, *Community Surface Dynamics Modeling System (CSDMS) Meeting*, Boulder, CO.
- 2017 **Chadwick AJ**, Steele S, Silvestre J, Lamb MP. The role of channel avulsion in mediating transient land loss on drowning river deltas. Poster presentation, *American Geophysical Union Fall Meeting*, New Orleans, LA.
- 2017 **Chadwick AJ**, Lamb MP. The roles of backwater and relative sea-level rise in setting deltaic avulsion frequency. Oral presentation, *2<sup>nd</sup> International Science Workshop of Morphodynamics and Socioeconomic Sustainability of Large River Deltas*, Qingdao, China.
- 2017 **Chadwick AJ**, Lamb MP. The roles of backwater and relative sea-level rise in setting deltaic avulsion frequency. Oral presentation, *Japan Geophysical Union and American Geophysical Union Joint Meeting (AGU-JpGU)*, Chiba, Japan.
- 2016 **Chadwick AJ**, Ganti V, Hassenruck-Gudipati HJ, Lamb MP. How does delta shoreline sinuosity respond to changes in river discharge variability? Poster presentation, *Community Surface Dynamics Modeling System (CSDMS) Meeting*, Boulder, CO.
- 2016 **Chadwick AJ**, Lamb MP. The roles of sea-level rise and hydrodynamic backwater in setting deltaic avulsion patterns. Poster presentation, *American Geophysical Union Fall Meeting*, San Francisco, CA.

- 2015 **Chadwick AJ**, Ganti V, Hassenruck-Gudipati HJ, Lamb MP. The role of backwater hydraulics in mediating shoreline rugosity. Oral presentation, *American Geophysical Union Fall Meeting*, San Francisco, CA.
- 2014 **Chadwick AJ**, Ganti V, Hassenruck-Gudipati HJ, Lamb MP. Experimental investigation of the morphodynamic controls on delta-lobe formation and shoreline rugosity. Poster presentation, *American Geophysical Union Fall Meeting*, San Francisco, CA.
- 2013 **Chadwick AJ**, Capaldi T, Aurnou J. Developing interactive classroom projects: in-class robot flyby of an endoplanet. Poster presentation, *American Geophysical Union Fall Meeting*, San Francisco, CA.

## ***COMMUNITY LEADERSHIP & AFFILIATIONS***

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- 2024 – 2025 **Postdoc Representative, Lamont 75<sup>th</sup> Anniv. Planning Committee**  
Lamont-Doherty Earth Observatory, Columbia University
- 2024 – Current **Standing Member, Academic and Research Community Success (ARCS) Committee**  
Lamont-Doherty Earth Observatory, Columbia University
- 2024 **Lead Organizer, Lamont Postdoc Symposium**  
Hosted by: Lamont-Doherty Earth Observatory, Columbia University
- 2023 **Lead Organizer, Southern California Geobiology & Geomorphology Symposium**  
Hosted by: UC Santa Barbara
- 2022 **Member, Climate-Change Business Development Team**  
Exponent Engineering and Scientific Consulting
- 2019 – 2020 **Graduate Student Representative & Organizer of Early Career Spotlight**  
American Geophysical Union Earth and Planetary Surface Processes (AGU EPSP)
- 2018 **Lead Organizer, 1<sup>st</sup> Annual Southern California Geomorphology Symposium**  
Hosted by: California Institute of Technology
- 2017 – 2018 **Session Convener, Sediment Dynamics Across Landscapes**  
American Geophysical Union Fall Meeting  
Earth and Planetary Surface Processes Section
- 2017 – 2018 **Seminar Series Organizer, Geoclub**  
GeoClub Seminar Series, California Institute of Technology
- 2016 – Current **Peer Reviewer**  
*Geology*  
*Science Advances*  
*Journal of Sedimentology*  
*Water Resources Research*  
*Geophysical Research Letters*  
*The Geological Society Special Publications*  
*Journal of Geophysical Research: Earth Surface*  
*Remote Sensing*

2014 – Current      **Member**  
 American Geophysical Union (AGU)  
 Community Surface Dynamics Modeling System (CSDMS)  
 Sediment Experimentalist Network (SEN)

## ***TEACHING & MENTORSHIP***

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2021 – 2024      **Graduate Research Co-Mentor**  
 Mentee: Geila Volga Uzeda Orellana. *Now at GEO Morphix.*  
 Primary Advisor: Elisabeth Steel  
 Geological Sciences & Geological Engineering MSc program, Queens University

2022      **Teacher & Course Developer**  
 GEOG288VG Special Topics in Geography: *Quantifying Global River Kinematics from Remote Sensing Observations*  
 UC Santa Barbara Department of Geography

2020 – 2022      **Undergraduate Research Mentor**  
 Mentee: Rashel Williams-Schaetzel. *Now at Minnesota Health Fairview.*  
 University of Minnesota, St. Anthony Falls Laboratory

2019      **Teaching Assistant**  
 Ge121C Advanced Field Geology: *The Grand Canyon & Wheeler Ridge*  
 California Institute of Technology SP 2018-19

2018      **Climate-School Seminar Series for Undergraduates**  
 Volunteer  
 Resnick Sustainability Institute at Caltech  
 Caltech Summer Undergraduate Research Fellowship (SURF)

2017 – 2020      **Undergraduate Research Mentor**  
 Mentee: Sarah Steele. *Now at Harvard University.*  
 Caltech Summer Undergraduate Research Fellowship

2017 – 2018      **Undergraduate Research Mentor**  
 Mentee: Jose Silvestre. *Now at Tulane University.*  
 UNAVCO Research Experiences in Solid Earth Sciences for Students (RESESS)  
 Caltech WAVE Undergraduate Research Fellowship

2017      **Teaching Assistant**  
 Ge121A Advanced Field Geology: *The Role of Vegetation in Shaping Rivers*  
 California Institute of Technology FA 2016-17

2017      **Teaching Assistant**  
 Ge126 Special Topics in Geomorphology: *River Morphodynamics*  
 California Institute of Technology SP 2016-17

2017      **Teaching Assistant**  
 Ge121B Advanced Field Geology: *Southeast Death Valley*  
 California Institute of Technology WI 2016-17

2016      **Teaching Assistant**  
 Ge 120A Introduction to Field Geology: *Rainbow Basin & the Mitchell Range*  
 California Institute of Technology SP 2015-16

2015 – 2017      **Undergraduate Research Mentor**  
 Mentee: Kirby Sikes. *Now at the Massachusetts Public Interest Research Group.*  
 Caltech Summer Undergraduate Research Fellowship (SURF)

2013      **Course Developer & Reader**  
 ESS71: Introduction to Computing For Geo- and Space Scientists  
 University of California, Los Angeles SP 2012-13

Summary of Quantitative Teaching Evaluations	Score	Department Average Score
<i>Overall teaching effectiveness:</i>	<b>4.96 / 5</b>	4.63 / 5
<i>Provided helpful comments on assignments, papers, or exams:</i>	<b>5.00 / 5</b>	4.48 / 5
<i>Answered questions clearly and concisely:</i>	<b>4.96 / 5</b>	4.64 / 5
<i>Was well prepared for section, office hours, or lab:</i>	<b>4.79 / 5</b>	4.64 / 5
<i>Presented material clearly in section or lab:</i>	<b>5.00 / 5</b>	4.69 / 5

#### Sample Comments from Teaching Evaluations

*Austin is super knowledgeable, thoughtful, and curious. He's a mellow dude, but his enthusiasm for his subject really comes through. And he was always accessible for questions and concerns. A delight to work with.*

For Advanced Field Geology, Caltech Ge121A Fall 2018

*Austin was a really patient and helpful TA. He was super helpful out in the field. He always made me feel like my questions were well founded even when I felt sort of lost with the whole field geo thing being new. It was really important to have a good TA for this class and he more than fulfilled that role!*

For Introduction to Field Geology, Caltech Ge120A Spring 2016

## OUTREACH

- 2025      **Press feature for *The Hindu***  
*Geographers uncover why some rivers stay single and others split*  
<https://www.thehindu.com/sci-tech/energy-and-environment/geographers-uncover-why-some-rivers-stay-single-while-others-split/article69999220.ece>
- 2025      **Video interview for *AAAS Science Magazine***  
*Shaping Rivers*  
<https://www.science.org/content/article/how-do-rivers-flow-split-and-change>
- 2025      **Press feature for *USA Today***  
*How do rivers work? Scientists think they've solved a 'longstanding mystery.'*  
<https://www.usatoday.com/story/news/nation/2025/07/15/mystery-about-rivers-has-a-new-answer/84604406007/>
- 2025      **Press feature for *State of the Planet: News from the Columbia Climate School***  
*Rivers choose their path based on erosion — a discovery that could transform flood planning*

- <https://news.climate.columbia.edu/2025/07/10/rivers-choose-their-path-based-on-erosion-a-discovery-that-could-transform-flood-planning/>
- 2025 **Press feature for *The Current: UC Santa Barbara News***  
*Rivers choose their path based on erosion — a discovery that could transform flood planning and restoration*  
<https://news.ucsb.edu/2025/021948/rivers-choose-their-path-based-erosion-discovery-could-transform-flood-planning-and>
- 2023–2024 **Presenter & Coordinator, 2023 Lamont-Doherty Earth Observatory Open House**  
 Exhibit: *Sea-level Rise and Tectonics in Bangladesh*  
<https://openhouse.ldeo.columbia.edu/content/exhibits>
- 2024 **Coordinator, *Earth Observations: Conversations with Lamont Scientists***  
 Monthly discussion-focused Q&A series connecting scientists with public audience
- 2023 **Science consultant for press feature in *Eos: Science News by AGU***  
*Forecasting Earthquake-Induced Floods*  
<https://eos.org/articles/forecasting-earthquake-induced-floods>
- 2023 **High-School Outreach Developer**  
 Short Course: *The Secret Lives of Moving Rivers*  
 UC Santa Barbara School for Scientific Thought
- 2022 **Press feature for *Eos: Science News by AGU***  
*Estimating Land Loss in River Deltas*  
<https://eos.org/articles/estimating-land-loss-in-river-deltas>
- 2022 **Press feature for *Hakai Magazine: Coastal science and societies***  
*River Deltas are Running Out of Land*  
<https://hakaimagazine.com/news/river-deltas-are-running-out-of-land/>
- 2022 **Press feature for *The Current: UC Santa Barbara News***  
*Where Rivers Jump Course*  
<https://www.news.ucsb.edu/2022/020645/where-rivers-jump-course>
- 2020 **Press feature for the *Climate Connections* radio program**  
 Yale Center for Environmental Communication
- 2020 **Press feature for *The Current: UC Santa Barbara News***  
*Jumping Course*  
<https://www.news.ucsb.edu/2020/019953/jumping-course>
- 2020 **Press feature for Caltech News**  
*Sea-Level Rise Could Make Rivers More Likely To Jump Course*  
<https://www.caltech.edu/about/news/sea-level-rise-could-make-rivers-more-likely-jump-course>
- 2020 **Press feature for NSF Research News**  
*Sea level rise could make rivers more likely to jump course*  
[https://www.nsf.gov/discoveries/disc\\_summ.jsp?cntn\\_id=301071](https://www.nsf.gov/discoveries/disc_summ.jsp?cntn_id=301071)
- 2018 **Press Feature on BBC World Service Television and Radio News**  
*A laboratory dedicated to understanding how rivers function in nature*  
<https://www.bbc.com/arabic/tv-and-radio-45527141>

2013 – 2014

**Public Outreach Coordinator & Organization Co-Founder**  
Bruin Geological Survey (BGS)  
University of California, Los Angeles

## ***TECHNICAL SKILLS***

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### **Field & laboratory techniques**

- Particle image velocimetry
- Laboratory flume engineering
- Hydroacoustic profiling (Massa, ADCP)
- Laser altimetry (Keyence, LRF)
- Shallow subsurface surveys (RSET, MH)
- GPS surveys (GNSS, Differential, RTK)
- UAV surveys (Airborne, Aquatic)
- Sediment transport surveys
- Geologic mapping
- Geomorphic Mapping

### **Consulting Experience**

- Flood risk assessment
- Erosion risk assessment
- Floodplain restoration
- Dam & levee management
- Evaluation of surface-water and sediment contamination risks
- Groundwater extraction and water-table drawdown

### **Programming & software**

- MATLAB
- PIVlab
- Python
- R
- GeoClaw
- QGIS
- ENVI
- LabVIEW
- Adobe Illustrator
- Adobe Photoshop
- Adobe Premier Pro
- Adobe Animate