

ARMITA RAZIEH MANAFZADEH

Ahr-MEE-tuh Rah-zee-EH Man-off-ZAH-deh

Gaylord Donnelley Postdoctoral Environmental Fellow & NSF Postdoctoral Research Fellow in Biology, Yale University
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APPOINTMENTS

2022- Postdoctoral Associate, Yale Institute for Biospheric Studies, Yale University

EDUCATION

2022 PhD, Ecology, Evolution, and Organismal Biology, Brown University Advisor: Stephen Gatesy
2019 ScM, Ecology and Evolutionary Biology, Brown University
2016 BA, Integrative Biology, University of California, Berkeley

HONORS, AWARDS, AND FELLOWSHIPS

2023 [D. Dwight Davis Award](#), Society for Integrative and Comparative Biology
2023-2025 [Postdoctoral Research Fellowship in Biology](#), National Science Foundation
2022, 2026 [Gaylord Donnelley Postdoctoral Environmental Fellowship](#), Yale University
2022-2025 [Miller Research Fellowship](#), UC Berkeley [*Declined to accept Donnelley and NSF PRFB.*]
2022 [Alfred Sherwood Romer Prize](#), Society of Vertebrate Paleontology
2022 [Early Career Scientist Award](#), JF Crow Institute for the Study of Evolution, UW Madison
2022 [Dorothy M. Skinner Award](#), Society for Integrative and Comparative Biology
2021-2022 [Samuel M. and Ann S. Mencoff Fellowship](#), Brown University
2020, 2021 [Mimi A. R. Koehl and Steven Wainwright Award](#) Finalist, Society for Integrative and Comp. Biol.
2019 [Winifred Goldring Award](#), Association for Women Geoscientists and Paleontological Society
2016-2022 [Presidential Fellowship](#), Brown University
2016-2021 [Graduate Research Fellowship](#), National Science Foundation
2016 [Award in Natural History](#) (formerly the Joseph LeConte Award), UC Berkeley
2016 [High Distinction in General Scholarship](#) and [Highest Honors in Integrative Biology](#), UC Berkeley
2012-2016 [College of Letters and Science Dean's Honors](#), UC Berkeley

REFEREED PUBLICATIONS

[Google Scholar](#): 323 citations; h-index = 11; i10-index = 11

*denotes equal contribution; §denotes mentee

Journal Articles

21. [*In review.*] Park N[§], Crasta N, Islam W, Sieberer J[§], **Manafzadeh AR**, Fulkerson J, Tanaka M. Short-term complications after Medial Quadriceps Tendon-Femoral Ligament reconstruction for patellar instability.
20. [*In review.*] Hatala KG, Gatesy SM, **Manafzadeh AR**, Lusardi EM, Falkingham PJ. A volumetric method for measuring the longitudinal arch of human tracks and feet.

19. [In review.] Merten L[§], **Manafzadeh AR**, Herbst EC, Amson E, Tambusso PS, Arnold P*, Nyakatura JA*. The functional significance of aberrant cervical counts in sloths: insights from automated exhaustive analysis of cervical range of motion.
18. [In revision.] Young MW[§], Wilken AT, **Manafzadeh AR**, Schurr A, Bastian A, Dickinson E, Granatosky MC. The dual function of prokinesis in the feeding and locomotor systems of parrots.
17. [In revision.] **Manafzadeh AR**, Gatesy SM, Bhullar B-AS. Articular surface interactions distinguish dinosaurian locomotor joint poses.
16. **Manafzadeh AR**. 2023. Joint mobility as a bridge between form and function. *Journal of Experimental Biology*, jeb245042.
15. Herbst EC*, Manafzadeh AR*, Hutchinson JR. 2022. Multi-joint analysis of pose viability supports the possibility of salamander-like hindlimb configurations in the Permian tetrapod *Eryops megacephalus*. *Integrative and Comparative Biology*, icac083.
14. **Manafzadeh AR**, Gatesy SM. 2022. Advances and challenges in paleobiological reconstructions of joint mobility. *Integrative and Comparative Biology*, icac008.
13. Gatesy SM, **Manafzadeh AR**, Bishop PJ, Turner ML, Kambic RE, Cuff AR, Hutchinson JR. 2022. A proposed standard for quantifying 3-D hindlimb poses in living and extinct archosaurs. *Journal of Anatomy*, 241:101-118.
12. **Manafzadeh AR**, Gatesy SM. 2021. Paleobiological reconstructions of articular function require all six degrees of freedom. *Journal of Anatomy*, 239:1516-1524.
11. **Manafzadeh AR**, Kambic RE, Gatesy SM. 2021. A new role for joint mobility in reconstructing vertebrate locomotor evolution. *Proceedings of the National Academy of Sciences*, 118:e2023513118.
10. **Manafzadeh AR**. 2020. A practical guide to measuring *ex vivo* joint mobility using XROMM. *Integrative Organismal Biology*, obaa041.
9. **Manafzadeh AR**, Gatesy SM. 2020. A coordinate-system-independent method for comparing joint rotational mobilities. *Journal of Experimental Biology*, jeb.227108.
8. Laurence-Chasen JD, **Manafzadeh AR**, Hatsopoulos NG, Ross CF, Arce-McShane FI. 2020. Integrating XMALab and DeepLabCut for high-throughput XROMM. *Journal of Experimental Biology*, jeb.226720.
7. Weller HI, Olsen AM, Camp AL, **Manafzadeh AR**, Hernandez LP, Brainerd EL. 2020. An XROMM study of food transport and swallowing in the channel catfish. *Integrative Organismal Biology*, obaa018.
6. Bhullar B-AS*, Manafzadeh AR*, Miyamae JA, Hoffman EA, Brainerd EL, Musinsky C, Crompton AW. 2020. Reply to: Jaw roll and jaw yaw in early mammals. *Nature*, 582:E9-E12.
5. Tsai HP, Turner ML, **Manafzadeh AR**, Gatesy SM. 2020. Contrast-enhanced XROMM reveals *in vivo* soft tissue interactions in the hip of *Alligator mississippiensis*. *Journal of Anatomy*, 236:288-304.
4. van Meer NMME[§], Weller HI, **Manafzadeh AR**, Kaczmarek EB, Scott B, Gussekloo SWS, Wilga CD, Brainerd EL, Camp AL. 2019. Intra-oropharyngeal food transport and swallowing in white-spotted bamboo sharks. *Journal of Experimental Biology*, 222:jeb201426.
3. Bhullar B-AS*, Manafzadeh AR*, Miyamae JA, Hoffman EA, Brainerd EL, Musinsky C, Crompton AW. 2019. Rolling of the jaw is essential for mammalian chewing and tribosphenic molar function. *Nature*, 566:528-532.
2. **Manafzadeh AR**, Padian K. 2018. ROM mapping of ligamentous constraints on avian hip mobility: implications for extinct ornithomirans. *Proceedings of the Royal Society B*, 285:1879.

Book Chapters

1. [In press.] **Manafzadeh AR**, Bishop PJ. "Dinosaur locomotion." In *The Complete Dinosaur* (Third Edition). Bloomington: Indiana University Press.

GRANTS

Funded

2023	Postdoctoral Scholars Travel Fund Award, Yale University	\$1,000
2020	Jackson School of Geosciences Travel Grant, Society of Vertebrate Paleontology	\$600
2020	Doris O. and Samuel P. Welles Research Fund Grant, UC Museum of Paleontology	\$650
2019	Steven Cohen Award for Student Research, Society of Vertebrate Paleontology	\$3,000
2019	Grant-in-Aid of Research, Sigma Xi Scientific Honors Society	\$993
2019	Doris O. and Samuel P. Welles Research Fund Grant, UC Museum of Paleontology	\$743
2019	Dissertation Enhancement Grant, Bushnell Graduate Research and Education Fund	\$12,343
2017	Grant-in-Aid of Research, Sigma Xi Scientific Honors Society	\$371
2015	Academic Opportunity Fund Award, Associated Students of the University of California	\$250
2014	Research Experience for Undergraduates Scholarship, National Science Foundation	\$6,250
2012	Exemplary Student Research Program Grant, Argonne National Laboratory	\$1,500

Under Consideration

2023	NIH R15: Academic Research Enhancement Award (<i>Key Personnel</i> , PI: Gidmark)	\$392,755
2023	NSF BII: Biological Integration Institutes (<i>Other Personnel</i> , PI: Venkadesan)	\$15,000,000

INVITED TALKS

Research Seminars

2023	[Upcoming.] Yale University, Department of Earth & Planetary Sciences Postdoc Seminar Series
2023	Des Moines University, Department of Anatomy
2023	New York Institute of Technology College of Osteopathic Medicine, Department of Anatomy
2022	California State University Long Beach, Department of Biology
2022	University of Wisconsin-Madison, JF Crow Institute for the Study of Evolution
2022	Yale University, Yale Institute for Biospheric Studies
2022	Yale University, Computer Graphics Group
2022	The Mathematical Laws of Morphology and Biomechanics Working Group
2021	Duke University, Musculoskeletal Bioengineering Laboratory
2021	Bangor University, Behaviour, Ecology, and Physiology Seminar Series
2021	Burke Museum of Natural History and Culture, Paleo Lunch Seminar Series
2020	Royal Veterinary College, Structure and Motion Laboratory
2020	California State University Fresno, Department of Biology
2020	Harvard Museum of Comparative Zoology, 'Virt' Paleo Seminar Series
2020	University of Calgary, Comparative Biomechanics Discussion Group
2020	University of Akron, Astley Lab
2020	University of Chicago, Ross Lab ('Mandible Meeting')
2020	University of Missouri, Holliday Lab
2016-2020	Brown University, Department of Ecology, Evolution, and Organismal Biology (x3)
2015-2020	UC Museum of Paleontology, Seminar in Paleontology (x5)

Public Talks

- 2023 Yale University, Women in Earth and Planetary Sciences Day
2021 American Museum of Natural History, Volunteer Office Lecture Series
2020 Providence, RI Nerd Nite
2019 Burpee Museum of Natural History, PaleoFest

Workshops and Symposia

- 2022 “Morphological methods in evolutionary biomechanics,” Integrative Organismal Modeling of Movement (IOMM) NSF-IOS Workshop
2022 “Evolutionary conservation and diversity in a key vertebrate behavior: ‘walking’ as a model system,” Society for Integrative and Comparative Biology Annual Meeting Symposium

CONFERENCE PRESENTATIONS

§denotes mentee

44. **Manafzadeh AR**, Gatesy SM, Bhullar B-AS. 2023. Extreme long-axis rotation: the functional consequences of fibular reduction in theropod dinosaurs. The 13th International Congress of Vertebrate Morphology, Cairns.
43. Trail SE[§], Mayerl CJ, Capano JG, **Manafzadeh AR**, van Meer NMME[§], Blob RW, Wyneken J, Brainerd EL. 2023. XROMM analysis of flipper movement during locomotion in loggerhead sea turtles. The 13th International Congress of Vertebrate Morphology, Cairns.
42. Gidmark NJ, McParland E[§], **Manafzadeh AR**, Stringer A[§], Siddique A[§]. 2023. Comparative functional anatomy, for clinical sake. Midwest Regional Meeting of the Society for Integrative and Comparative Biology.
41. Trail SE[§], Mayerl CJ, Capano JG, **Manafzadeh AR**, van Meer NMME[§], Blob RW, Wyneken J, Brainerd EL. 2023. More than just ‘flapping’ flippers: A new understanding of powerstroking in neonate loggerhead sea turtles. International Sea Turtle Symposium.
40. **Manafzadeh AR**, Gatesy SM, Bhullar B-AS. 2023. Joint surface interactions distinguish dinosaurian locomotor poses. Society for Integrative and Comparative Biology 2023 Annual Meeting. (D. Dwight Davis Award Session Winner.)
39. Macrander J, Philson C, MacNeill B, **Manafzadeh AR**, Munley K, Stager M, Houtz J, Shankar A, Hulett R, Varney R, Rogers L, Lessner E, Arias A. 2023. Questions you didn’t know you had: postdoc and graduate student edition. Society for Integrative and Comparative Biology 2023 Annual Meeting.
38. Violet G[§], **Manafzadeh AR**, Gatesy SM. 2023. Knee long-axis rotation in the Common Loon, *Gavia immer*. Society for Integrative and Comparative Biology 2023 Annual Meeting.
37. Trail SE[§], Mayerl CJ, Capano JG, **Manafzadeh AR**, van Meer NMME[§], Blob RW, Wyneken J, Brainerd EL. 2023. XROMM analysis of flipper movement during locomotion in loggerhead sea turtles. Society for Integrative and Comparative Biology 2023 Annual Meeting.
36. **Manafzadeh AR**. 2022. Joint surface interactions distinguish dinosaurian locomotor poses. Society of Vertebrate Paleontology, 82nd Annual Meeting, Toronto, Canada, Meeting Program and Abstracts. (Romer Prize Session Winner.)
35. **Manafzadeh AR**, Gatesy SM. 2022. Reconstructing locomotion: lessons from the joints of living animals. Society for Integrative and Comparative Biology 2022 Annual Meeting (Virtual; Invited Symposium Talk).
34. **Manafzadeh AR**, Gatesy SM. 2021. Paleobiological reconstructions of articular function require all six degrees of freedom. Society of Vertebrate Paleontology, 81st Annual Meeting (Virtual).

33. **Manafzadeh AR**, Gatesy SM. 2021. All six degrees of freedom are essential to reconstructions of articular function. Society for Integrative and Comparative Biology 2021 Annual Meeting (Virtual): Abstract BSP-2-8. (Mimi A. R. Koehl and Steven Wainwright Award Session Finalist.)
32. **Manafzadeh AR**, Gatesy SM. 2021. A coordinate-system-independent method for comparing joint rotational mobilities. Society for Integrative and Comparative Biology 2021 Annual Meeting (Virtual): Abstract P33-6.
31. Herbst EC, Eberhard E, **Manafzadeh AR**, Richards C, Hutchinson JR. 2021. New methods support the possibility of a salamander-like walk in the Permian tetrapod *Eryops*. Society for Integrative and Comparative Biology 2021 Annual Meeting (Virtual): Abstract BSP-11-4. (D. Dwight Davis Award Session Winner.)
30. Laurence-Chasen JD, **Manafzadeh AR**, Hatsopoulos NG, Ross CF, Arce-McShane FI. 2021. XROMM Tools for DeepLabCut: Bringing deep learning to XROMM marker tracking. Society for Integrative and Comparative Biology 2021 Annual Meeting (Virtual): Abstract P33-7.
29. Herbst EC, Eberhard E, **Manafzadeh AR**, Richards C, Hutchinson JR. 2020. Was the early tetrapod *Eryops* capable of a salamander-like walk? Developing new methods to test paleontological hypotheses about posture and gait. 18th Swiss Geoscience Meeting (Virtual). (Swiss Commission of Palaeontology Prize Winner.)
28. **Manafzadeh AR**, Gatesy SM. 2020. From bones to mobility to locomotion: reconstructing hindlimb poses in extant archosaurs. Society of Vertebrate Paleontology, 80th Annual Meeting (Virtual), Meeting Program and Abstracts, p. 181.
27. Bhullar B-AS, **Manafzadeh AR**, Miyamae JA, Hoffman EA, Brainerd EL, Musinsky C, Crompton AW. 2020. Mammalian chewing depends on rolling of the jaw and deep conservation of tooth form and function. Society of Vertebrate Paleontology, 80th Annual Meeting (Virtual), Meeting Program and Abstracts, p. 23.
26. **Manafzadeh AR**, Kambic RE, Gatesy SM. 2020. How informative is joint mobility? A 3-D analysis of potential versus realized joint poses in archosaurs. Society for Integrative and Comparative Biology 2020 Annual Meeting: Abstract 14-1. (Mimi A. R. Koehl and Steven Wainwright Award Session Finalist.)
25. Bhullar B-AS, **Manafzadeh AR**, Miyamae JA, Hoffman EA, Brainerd EL, Musinsky C, Crompton AW. 2020. The origin of chewing in mammals required rolling of the jaw and involved broad continuity in molar form and function. Society for Integrative and Comparative Biology 2020 Annual Meeting: Abstract S3-9.
24. **Manafzadeh AR**, Gatesy SM. 2019. What assumptions do paleontologists make about how joints work (and how can we test them)? Northeast Regional Meeting of the Society for Integrative and Comparative Biology, Divisions of Vertebrate Morphology and Comparative Biomechanics.
23. **Manafzadeh AR**, Kambic RE, Gatesy SM. 2019. How informative is joint mobility? A 3-D analysis of potential versus realized joint poses in archosaurs. The 12th International Congress of Vertebrate Morphology, Prague: Abstract S172.
22. Tsai HP, Turner ML, **Manafzadeh AR**, Gatesy SM. 2019. Contrast-enhanced XROMM reveals *in vivo* soft tissue interactions in the hip of *Alligator mississippiensis*. The 12th International Congress of Vertebrate Morphology, Prague: Abstract S230.
21. Weller HI, Olsen AM, Camp AL, Hernandez LP, **Manafzadeh AR**, Brainerd EL. 2019. 3-D intra-oral prey trajectories indicate distinct phases in how channel catfish (*Ictalurus punctatus*, Siluriformes: Ictaluridae) swallow food. The 12th International Congress of Vertebrate Morphology, Prague: Abstract S237.
20. Weller HI, **Manafzadeh AR**, Olsen AM, Hernandez LP, Camp AL, Brainerd EL. 2019. An XROMM study of intra-oral transport and swallowing in catfish. Society for Integrative and Comparative Biology 2019 Annual Meeting: Abstract 17-8.
19. van Meer NMME,[§] Weller HI, **Manafzadeh AR**, Kaczmarek EB, Scott B, Gussekloo SWS, Wilga CD, Brainerd EL, Camp AL. 2019. Food capture, transport, and swallowing in white-spotted bamboo sharks

- (*Chiloscyllium plagiosum*). Society for Integrative and Comparative Biology 2019 Annual Meeting: Abstract 129-3.
18. **Manafzadeh AR**, Padian K. 2018. Could pterosaurs and basal maniraptorans adopt a batlike hip pose? An analysis using “ROM Mapping,” a new method for comparing joint mobilities. Society of Vertebrate Paleontology, 78th Annual Meeting, Albuquerque, New Mexico, Meeting Program and Abstracts, p. 175.
 17. Tsai HP, Turner ML, **Manafzadeh AR**, Gatesy SM. 2018. Contrast-enhanced XROMM reveals *in vivo* soft tissue interactions in the hip of *Alligator mississippiensis*: implications for Pseudosuchia. Society of Vertebrate Paleontology, 78th Annual Meeting, Albuquerque, New Mexico, Meeting Program and Abstracts, p. 229.
 16. Tsai HP, Turner ML, **Manafzadeh AR**, Gatesy SM. 2018. Contrast-enhanced XROMM reveals *in vivo* soft tissue interactions in the hip of *Alligator mississippiensis*: implications for Archosauria. Midwest Regional Meeting of the Society for Integrative and Comparative Biology, Divisions of Vertebrate Morphology and Comparative Biomechanics.
 15. **Manafzadeh AR**, Gatesy, SM. 2018. How informative is joint mobility? A 3-D analysis of potential versus actualized joint poses. Northeast Regional Meeting of the Society for Integrative and Comparative Biology, Divisions of Vertebrate Morphology and Comparative Biomechanics.
 14. **Manafzadeh AR**. 2018. Post-hatching development of hind limb articular morphology in the common quail. Society for Integrative and Comparative Biology 2018 Annual Meeting: Abstract P3-177.
 13. Napoli JG,[§] Tsai HP, Turner ML, **Manafzadeh AR**, Gatesy SM. 2018. In- and ex vivo analysis of the kinematics and function of the tendon of Sutton in *Alligator mississippiensis*. Society for Integrative and Comparative Biology 2018 Annual Meeting: Abstract P2-228.
 12. Tsai HP, Turner ML, **Manafzadeh AR**, Gatesy SM. 2018. Significance of hip kinematics for interpreting articular soft tissue function in *Alligator mississippiensis*. Society for Integrative and Comparative Biology 2018 Annual Meeting: Abstract P2-227.
 11. Tsai HP, Turner ML, **Manafzadeh AR**, Gatesy SM. 2017. Significance of hip kinematics for interpreting articular soft tissue function in *Alligator mississippiensis*: evolutionary and biomechanical implications for Saurischia. Last Days of Pangea Triassic-Jurassic Research Symposium.
 10. **Manafzadeh AR**, Padian K. 2016. Could pterosaurs adopt a batlike hindlimb pose?: Ground-truthing ligamentous limits on ornithodiran hip mobility. Northeast Regional Meeting of the Society for Integrative and Comparative Biology, Divisions of Vertebrate Morphology and Comparative Biomechanics.
 9. Tsai HP, Turner ML, **Manafzadeh AR**, Gatesy SM. 2016. Hip joint kinematics of *Alligator mississippiensis*: Significance of articular soft tissues for interpreting hindlimb function. Northeast Regional Meeting of the Society for Integrative and Comparative Biology, Divisions of Vertebrate Morphology and Comparative Biomechanics.
 8. **Manafzadeh AR**, Padian K. 2016. Could pterosaurs adopt a batlike wing pose?: Implications of a functional analysis of the avian hip ligaments for the evolution of ornithodiran stance and gait. Society of Vertebrate Paleontology, 76th Annual Meeting, Salt Lake City, Utah, Meeting Program and Abstracts, p. 182.
 7. **Manafzadeh AR**, Holroyd PA, Rankin BD. 2016. Modeling fragmentary jaws as beams to test hypotheses of differing diets. The 11th International Congress of Vertebrate Morphology, Washington, D. C.
 6. Padian K, Cunningham JR, Langston WA, Conway J, **Manafzadeh AR**. 2016. How the largest known flying animal, the pterosaur *Quetzalcoatlus*, walked on land. The 11th International Congress of Vertebrate Morphology, Washington, D. C.
 5. **Manafzadeh AR**, Holroyd PA, Rankin BD. 2016. Using the geometric properties of jaws to constrain dietary reconstructions of phylogenetically ambiguous taxa. Society for Integrative and Comparative Biology 2016 Annual Meeting: Abstract P2-168.

4. **Manafzadeh AR**, Holroyd PA, Rankin BD. 2015. Using the geometric properties of jaws to constrain dietary reconstructions of Eocene faunivores. Society of Vertebrate Paleontology, 75th Annual Meeting, Dallas, Texas, Meeting Program and Abstracts, p. 173.
3. **Manafzadeh AR**, Angielczyk KD. 2015. Morphological integration in the mandibles of living reptiles and fossil synapsids. Society for Integrative and Comparative Biology 2015 Annual Meeting: Abstract 2.4.
2. **Manafzadeh AR**, Angielczyk KD. 2014. Morphological integration in the mandibles of living reptiles and fossil synapsids. 6th Annual Chicagoland Undergraduate Research Symposium Abstract Volume: p. 7.
1. Venkatesan N, Tae K, **Manafzadeh AR**, Choudhary T, Zhao KT, Noblett T, Dera P. 2012. Effect of chemical treatment on the structure of graphene. Argonne National Laboratory Advanced Photon Source Users Meeting, Program & Abstracts Volume: p. 97.

TEACHING AND MENTORSHIP

Certificates

In progress [Certificate of College Teaching Preparation](#), Poorvu Center, Yale University
 2020 [Graduate Certificate in Teaching Consultation](#), Sheridan Center, Brown University
 2020 [Graduate Certificate in Course Design](#), Sheridan Center, Brown University
 2017 [Graduate Certificate in Reflective Teaching](#), Sheridan Center, Brown University

Teaching Positions

Term	School	Course Title	Course Code	Role	Enrollment	Mean Evaluation
S 2021	Brown University	Human Anatomy & Biomechanics	BIOL 1885	Laboratory TA	60	–
F 2020	Brown University	Reflective Teaching	–	Facilitator	8	5.00/5
F 2020	Brown University	Evolutionary Biology	BIOL 0480	Co-Designer and Head TA	71	4.93/5
S 2019	Warren Alpert School of Medicine	Human Anatomy II	BIOL 3655	TA	146	4.81/5
F 2018	Warren Alpert School of Medicine	Human Anatomy I	BIOL 3644	TA	146	4.81/5
F 2017	Brown University	Evolutionary Biology	BIOL 0480	TA	82	4.83/5
S 2013	UC Berkeley	Introduction to Robotics	CS 98	Co-Instructor	30	–

Guest Lectures

2022 Cats' Paws and Catapults: Animal Biomechanics (BIO 240), St. Mary's College
 2022 Evolution (BIOL 348), St. Ambrose University
 2021 Comparative Vertebrate Anatomy (BIO 331), Albright College
 2021 Seminar in Evolutionary Biology (BIO 424), Hamilton College
 2020 Animal Structure and Motion (BIO 5550), California State University San Bernardino
 2018, 2020 Comparative Biology of the Vertebrates (BIOL 1880), Brown University (x2)

2017-2021 Evolutionary Biology (BIOL 0480), Brown University (x5)
 2019 Human Anatomy II (BIOL 3655), Warren Alpert School of Medicine
 2018 Human Anatomy I (BIOL 3644), Warren Alpert School of Medicine
 2017 Biological Design (BIOL 0400), Brown University
 2016 The Age of Dinosaurs (IB 24), UC Berkeley
 2013 Introduction to Robotics (CS 98), UC Berkeley

Curriculum Development

2021 Developed lab exercises for new Human Anatomy & Biomechanics course (Brown BIOL 1885)
 2019 *Evo in the News* Resource: “[Reconstructing locomotion with fossils, footprints, and... robots?](#)”
 2019 *Evo in the News* Resource: “[How did early mammals chew?](#)”
 2013-2020 Contributor to *Understanding Global Change*, ugc.berkeley.edu

Other

2022- Mentor, Women in Science at Yale
 2021- Mentor, Broadening Participation Mentorship Program, SICB
 2021- Mentor, Women of Color in Ecology and Evolutionary Biology Mentoring Program
 2019 Evolutionary Biology Curriculum Advisor, Neuqua Valley High School, Naperville, IL
 2018-2020 Graduate Student Peer Mentor, Brown EEOB
 2017-2021 K-College Tutor, Kaplan Tutoring Services, Barrington, RI
 2017 Grader, Diversity of Life (BIOL 0210), Brown University
 2014-2016 K-12 Tutor, Classroom Matters, Berkeley, CA
 2013-2016 Educational Resource Development Intern, National Center for Science Education, Oakland, CA
 2012-2013 Mentorship Coordinator, Pioneers in Engineering, Berkeley, CA

SERVICE

To the Profession

SICB = Society for Integrative and Comparative Biology; SVP = Society of Vertebrate Paleontology

2023-2024 Student/Postdoctoral Officer, ISB Comparative Neuromuscular Biomechanics Working Group
 2023-2024 Assistant Editor, *Integrative and Comparative Biology*
 2023 Platform Session Moderator, The 13th International Congress of Vertebrate Morphology
 2022-2023 Scientific Program Officer, The 13th International Congress of Vertebrate Morphology
 2022 Dorothy M. Skinner Award Committee Member, SICB
 2021-2022 Guest Assistant Editor, *Integrative and Comparative Biology*
 2021 Session Chair, SICB Annual Meeting
 2020- Community Outreach Board Member, International Women in Biomechanics
 2020-2024 Student and Postdoctoral Liaison Committee Member, SVP
 2020-2023 Student/Postdoctoral Affairs Committee Rep., Division of Comparative Biomechanics, SICB
 2020-2021 Planning Committee Member, Womxn in STEM (WiSTEM) Symposium
 2020 Code of Conduct Ally, SICB Annual Meeting
 2019- Preprint Editorial Team Member/Paleontology Section Leader, *Proceedings of the Royal Society B*
 2018- Outreach Associate and Social Media Co-Coordinator, *Integrative Organismal Biology*
 2018 Platform Session Moderator, SVP Annual Meeting

2016 Platform Session Moderator, The 11th International Congress of Vertebrate Morphology
2015-2018 Student Volunteer (Charlotte Mangum Student Support Program), SICB Annual Meeting

Peer Reviewer for: *US National Science Foundation – Division of Integrative Organismal Systems (NSF IOS), Current Biology, Integrative Organismal Biology, Journal of Anatomy, Journal of Experimental Biology, Palaeontologia Electronica, PeerJ, PLOS ONE, Proceedings of the Royal Society B, Scientific Reports, The Anatomical Record, Zoological Journal of the Linnean Society*

To the Institution

Brown EEOB = Brown University Department of Ecology, Evolution, and Organismal Biology

2023 Exhibit Design Consultant, Yale Peabody Museum of Natural History
2020-2021 Departmental Diversity/Inclusion Action Plan Committee Student Representative, Brown EEOB
2019-2021 College Curriculum Council Student Representative, Brown University
2019-2020 Graduate Student Association Secretary, Brown EEOB
2019 GRE Elimination Evaluation Committee Student Representative, Brown EEOB
2018-2019 Graduate Student Grievance Ad Hoc Committee Student Representative, Brown University
2018 External and Internal Departmental Review Student Representative, Brown EEOB
2017-2020 Ecology and Evolutionary Biology Book Club Organizer, Brown EEOB
2017-2019 Ecology and Evolutionary Biology Brown Bag Seminar Organizer, Brown EEOB
2017 *Form and Function* Reading Group Organizer, Brown University Morphology Group
2016 Morphology Reading Group Organizer, UC Museum of Paleontology
2014-2016 Curatorial Assistant, UC Museum of Paleontology

To the Community

2022 Panelist, Girls Advancing in STEM (GAINS) Conference
2020-2021 Regional Science Olympiad Tournament Event Coordinator, Providence, RI
2018-2019 Rhode Island Science and Engineering Fair Judge, Providence, RI
2017- Correspondent, Letters to a Pre-Scientist
2017- Visiting K-12 Science Instructor: Vartan Gregorian Elementary School, Providence, RI; Wild Ones, Providence, RI; Neuqua Valley High School, Naperville, RI; Skype-a-Scientist; etc.
2017-2018 Marine Biology Club Co-Leader, Paul Cuffee Upper School, Providence, RI
2014-2016 Cal Day and Public Short Course Assistant/Open House Presenter, UC Museum of Paleontology
2012-2013 Visiting Science Instructor at John Muir Elementary School, Berkeley, CA
2012 Open House Presenter, Lawrence Hall of Science, Berkeley, CA

SCIENCE COMMUNICATION AND MEDIA COVERAGE

Articles Written

IOB Open = Journal of Integrative Organismal Biology Blog

2022 “How can we see inside muscles?” *IOB Open*
2021 “How do birds jump?” *IOB Open*
2020 “How do birds keep their balance?” *IOB Open*
2020 “What can the Industrial Revolution teach us about animal motion?” *IOB Open*

- 2020 “Can beards protect against punches?” *IOB Open*
- 2019 “What determines the force a muscle can produce?” *IOB Open*
- 2019 “Do frogs really breathe with their eyes?” *IOB Open*
- 2019 “How do owls fly so silently?” *IOB Open*
- 2019 “Why do crocs eat rocks?” *IOB Open*

Media Coverage

- 2022 Alfred Sherwood Romer Prize reception covered in *Yale Daily News*
- 2021 Manafzadeh et al., 2021 *PNAS* covered in *News from Brown, Inverse, Freethink, Futurity*, etc.
- 2020 Thesis work featured in university-wide research coverage, *Scene at Brown*
- 2019 Bhullar & Manafzadeh et al., 2019 *Nature* covered in *Yale News*
- 2018 Manafzadeh & Padian, 2018 *Proceedings of the Royal Society B* covered in *News from Brown, Brown Medicine Magazine, Parsing Science Podcast, Gizmodo io9, Atlas Obscura, Daily Mail*, etc.
- 2017 Interviewed for and featured in illustrated English / Spanish children’s book about female paleontologists, *She Found Fossils / Ella Encontró Fósiles*, by Gold, West, and Gardiner
- 2015 Featured in national news coverage about UC Museum of Paleontology fossils, “At UC Berkeley Bell Tower, Fossils Get a New Life” *NBC Nightly News*

Interviewed for Commentary by: *BBC, New York Times, The Atlantic, Gizmodo, Live Science*, etc.

AFFILIATIONS

- 2016- International Society for Vertebrate Morphology; Sigma Xi Scientific Honors Society
- 2015- Society of Vertebrate Paleontology
- 2014- Society for Integrative and Comparative Biology