Bingyang Zhang

Assistant Professor
Ingram School of Engineering
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Education Background

Ph.D., Mechanical Engineering, December 2021

University of Illinois Urbana-Champaign, Urbana, IL, USA

Advisor: Dr. Shelby B. Hutchens

Dissertation Title: *Y-shaped cutting as a characterization method for the failure of soft elastic solids*

M.S., Mechanical Engineering, May 2016

University of Illinois Urbana-Champaign, Urbana, IL, USA

Advisor: Dr. Shelby B. Hutchens

Thesis Title: *Fabrication and mechanical characterization of liquid-in-solid elastomeric soft composites*

B.E., Mechanical Design, Manufacturing and Automation, July 2014

Tongji University, Shanghai, China

Advisor: Dr. Qicai Zhou

Thesis Title: *Bionic Topology Optimization Design Theory for Jib Structure of Large Cranes*

Professional Experience

2025.8 – current	**Assistant Professor – Texas State University**, Ingram School of Engineering, San Marcos, TX
2024.7 – 2025.7	**Postdoctoral Associate – Cornell University**, Sibley School of Mechanical and Aerospace Engineering, Ithaca, NY
	Mentors: Dr. Alan T. Zehnder and Dr. Chung-Yuen Hui
2021.9 – 2024.7	**Postdoctoral Research Associate – University of Illinois Urbana-Champaign**, School of Integrative Biology, Urbana, IL
	Mentor: Dr. Philip S. L. Anderson
2015.1 – 2021.8	**Research and Teaching Assistant – University of Illinois Urbana-Champaign**, Mechanical Science and Engineering, Urbana, IL

Fellowships, Awards, and Honors

2024-2025	**NextGen Professors Cohort**, Cornell University

2022	**Financial Support Award** ($1,800) – Fast Movements: Nature, Robotics and Materials –Symposium at Duke University, July 2022
2021	**Poster Award** (Judge vote) – Society of Engineering Science (SES), Annual Conference, 2021 (Virtual Month)
2019	**Mavis Future Faculty Fellowship** ($2,000), University of Illinois Urbana-Champaign
2018	**Alumni Teaching Fellowship (**~$25,000, includes stipend and tuition waiver**)**, University of Illinois Urbana-Champaign, MechSE Department, IL
2014	**Outstanding Graduate**, Tongji University
2013	Shanghai Scholarship for Outstanding Student, Shanghai, China
2013	3rd-Prize of the 9th National Zhou Peiyuan Mechanics Competition, Shanghai, China
2013	Excellent Student Cadre, 2011-2012 academic year, Tongji University, Shanghai, China
2012	Weichai Power Corporate Scholarship, Tongji University, Shanghai, China

Principal Research Interests

- Mechanics of soft materials
- Fracture and damage mechanics
- Puncture and cutting mechanics
- Bio-inspired protective materials
- Constitutive modeling of time-dependent materials.

List of Publications

Peer Reviewed Journal Articles

(* indicates corresponding authors)

1. **B. Zhang**, B. Zhu, C. Y. Hui, A. T. Zehnder. Effect of Controlled Chain-Scission Damage on Viscoelasticity in Double Network Elastomers. ***Experimental Mechanics*** (2026). https://doi.org/10.1007/s11340-026-01344-9.
2. P. S. L. Anderson, **B. Zhang**, K. Pan, B. Scott, A. Weber. Trade-offs in mechanical performance influence the diversity of fangs, stingers and spines. ***Science Advances*** 12, eaec5395 (2026). 10.1126/sciadv.aec5395.
3. B. Baskota, **B. Zhang**, P. S. L. Anderson. The biomechanics of fish skin: assessing puncture resistance to the dynamic predatory mechanism of cone snails. ***J Exp Biol*** 229 (1): jeb250634 (2026). https://doi.org/10.1242/jeb.250634.
4. R. Keeffe*, **B. Zhang**, P. S. L. Anderson, P. L. R. Brennan. Evolutionary morphology of genital spines informed by puncture mechanics. ***Proc. R. Soc. B.*** 292: 20251698 (2025). https://doi.org/10.1098/rspb.2025.1698.
5. **B. Zhang***, B. Baskota, J.J. Chabain, and P. S. L. Anderson*. Curving expectations: the minimal impact of structural curvature in biological puncture mechanics. ***Science Advances*** 10: eadp8157 (2024). https://doi.org/10.1126/sciadv.adp8157.

6. **B. Zhang***, B. Baskota, and P. S. L. Anderson*. Being thin-skinned can still reduce damage from dynamic puncture. ***Journal of the Royal Society Interface*** 21: 20240311 *(*2024). https://doi.org/10.1098/rsif.2024.0311.
7. **B. Zhang***, and P. S. L. Anderson. How rate-based stretchability of soft solids controls fracture morphology in dynamic conical puncture. ***International Journal of Impact Engineering*** 187: 104911 (2024). https://doi.org/10.1016/j.ijimpeng.2024.104911.
8. **B. Zhang***, and P. S. L. Anderson. Investigation of the rate-mediated form-function relationship in biological puncture. ***Scientific Reports*** 13: 12097 (2023). https://doi.org/10.1038/s41598-023-39092-8
9. **B. Zhang***, and P. S. L. Anderson. Modeling biological puncture: a mathematical framework for determining the energetics and scaling. ***Journal of the Royal Society Interface*** 19: 20220559 (2022). https://doi.org/10.1098/rsif.2022.0559
10. **B. Zhang**, and S. B. Hutchens*. On the relationship between cutting and tearing in soft elastic solids. ***Soft Matter*** 17: 6728–6741 (2021). https://doi.org/10.1039/D1SM00527H

(This article was selected for the themed collections: Soft Matter Editor-in-Chief's Choice, Soft Matter Most Popular 2021, and 2021 Soft Matter Emerging Investigators.)

11. **B. Zhang**, C.-S. Shiang, S. Yang, and S. B. Hutchens*. Y-shaped cutting for the systematic characterization of cutting and tearing. ***Experimental Mechanics*** 59: 517–529 (2019). https://doi.org/10.1007/s11340-019-00479-2
12. W. Zhu*, J. Wang, P. Lin, and **B. Zhang**. Numerical simulation of aluminum alloy welding for butt-joint of aa2024 considering surface effect element. ***Applied Mechanics and Materials*** (2013). https://doi.org/10.4028/www.scientific.net/AMM.456.478
13. W. Zhu*, J. Wang, P. Lin, and **B. Zhang**. Numerical simulation of influence of different heat source models on temperature field of aluminum-alloy ring weld seam. ***Applied Mechanics and Materials*** (2013). https://doi.org/10.4028/www.scientific.net/AMM.456.216

Conference Proceedings

Non-refereed:

1. B. Baskota, **B. Zhang**, and P. S. L. Anderson. How easy is it to shoot fish in a barrel?: Puncture mechanics of unrestrained, multi-layered targets. *INTEGRATIVE AND COMPARATIVE BIOLOGY*. Vol. 65. JOURNALS DEPT, 2001 EVANS RD, CARY, NC 27513 USA: OXFORD UNIV PRESS INC, 2025.
2. **B. Zhang**, and S. B. Hutchens. Cutting-driven fracture and its microstructural-length-scale sensitivity in soft elastomers. Extd. Abstr. Ann. Conf. Adh. Soc. (2020).
3. **B. Zhang**, S. Yang, B. Bunch, and S. B. Hutchens. Effect of crack tip radius on cutting strength in elastomers. Extd. Abstr. SEM (the Soc. for Exp. Mech.) Ann. Conf. (2018).
4. **B. Zhang**, S. Yang, B. Bunch, K. Rivero Valles, and S. B. Hutchens. Cutting as intrinsic strength in crack-blunting amorphous elastomeric networks. Extd. Abstr. SEM (the Soc. for Exp. Mech.) Ann. Conf. (2017).

Abstracts

1. **B. Zhang**, and P. S. L. Anderson. Form-function relationship in biological puncture: the effect of speed, sharpness, and curvature. *SICB (Soc. for Integ. and Comp. Biol.) 2024 Ann. Meeting Abstr.*, *Integrative and Comparative Biology*, 64: S576 (2024). https://doi.org/10.1093/icb/icae140
2. P. S. L. Anderson, and **B. Zhang**. Adventures in experimental impact dynamics and puncture mechanics. *SICB (Soc. for Integ. and Comp. Biol.) 2024 Ann. Meeting Abstr.*, *Integrative and Comparative Biology*, 64: S16 (2024). https://doi.org/10.1093/icb/icae140
3. R. Keeffe, **B. Zhang**, P. S. L. Anderson, and P. Brennan. Evolutionary Morphology of Snake Hemipene Spines Informed by Puncture Mechanics. SICB (Soc. for Integ. and Comp. Biol.) 2024 Ann. Meeting Abstr., Integrative and Comparative Biology, 64: S265 (2024). https://doi.org/10.1093/icb/icae140
4. **B. Zhang**, and P. S. L. Anderson. Modeling biological puncture: on the mechanics, energetics, and scaling. SICB (Soc. for Integ. and Comp. Biol.) 2023 Ann. Meeting Abstr., Integrative and Comparative Biology, 63: S519 (2023). https://doi.org/10.1093/icb/icad002
5. P. S. L. Anderson, K. Pan, B. Scott, A. Weber, and **B. Zhang**. A Thorny Landscape: The Diversity of Biological Puncture Systems. SICB (Soc. for Integ. and Comp. Biol.) 2023 Ann. Meeting Abstr., Integrative and Comparative Biology, 63: S13 (2023). https://doi.org/10.1093/icb/icad002
6. **B. Zhang**, and P. S. L. Anderson. Modeling biological puncture: a mathematical framework for determining the energetics and scaling. Abstr. Pap. Interdisciplinary Symposium: Fast Movements: Nature, Robotics and Materials (2022).
7. **B. Zhang**, C.-S. Shiang, and S. B. Hutchens. Cutting as a tool for investigating crack-blunting-involved soft fracture. Abstr. Pap. APS (Am. Phys. Soc.) March Meeting (2019).

Works in Progress

1. A. Weber, **B. Zhang**, P. S. L. Anderson. Quantifying parasitoid wasp hosts' resistances to puncture to reveal physical pressures that may shape parasitoid ovipositor. ***J Exp Biol.*** (Under review).

List of Presentations

Professional Meetings and Conferences

1. **B. Zhang**, B. Zhu, C.-Y. Hui, A. Zehnder, and S. C. Debnah. "Tunable Elastic and Dissipative Responses in Multiple Network PDMS Elastomers: Mechanics and Damage Evolution" SEM Annual Conference (The Society for Experimental Mechanics) (Norfolk, VA, June 2026). Speaker: B. Zhang.
2. **B. Zhang**, B. Zhu, C.-Y. Hui, and A. Zehnder. "Partial Damage by Chain Scission and Its Impact on the Evolution of Viscoelasticity in Elastomers" SEM Annual Conference (The Society for Experimental Mechanics) (Milwaukee, WI, June 2025). Speaker: B. Zhang.

3. B. Baskota, **B. Zhang**, P. S. L. Anderson. "How easy is it to shoot fish in a barrel?: Puncture mechanics of unrestrained, multi-layered targets" The 2025 SICB Annual Meeting (The Society for Integrative and Comparative Biology) (Atlanta, Georgia, January 3-7, 2025). Speaker: P. S. L. Anderson.
4. **B. Zhang**, Bishal Baskota, Jules Chabain, and P. S. L. Anderson. "Form-function relationship in biological puncture: the effect of speed, sharpness, and curvature" SICB 2024 (The Society for Integrative and Comparative Biology) (Seattle, WA, January 2024). Speaker: B. Zhang.
5. **B. Zhang**, and P. S. L. Anderson. "Characterizing rate-dependent failure properties in soft materials: a constant ratio derived from dynamic puncture-induced fracture surfaces" 2023 SES Annual Technical Meeting (The Society of Engineering Science) (Minneapolis, MN, October 2023). Speaker: B. Zhang.
6. **B. Zhang**, and P. S. L. Anderson. "Modeling biological puncture: on the mechanics, energetics, and scaling." SICB 2023 (The Society for Integrative and Comparative Biology) (Austin, TX, January 2023). Speaker: B. Zhang.
7. **B. Zhang**, and P. S. L. Anderson. "Energy-based modeling of the mechanics of biological puncture." 2022 SES Annual Technical Meeting (The Society of Engineering Science) (Texas A&M university, College Station, TX, October 2022). Speaker: B. Zhang.
8. **B.Zhang**, and P. S. L. Anderson. "Modeling biological puncture: a mathematical framework for determining the energetics and scaling." Interdisciplinary Symposium: Fast Movements: Nature, Robotics and Materials. Duke University (Durham, NC, July 2022). Speaker: B. Zhang.
9. **B.Zhang**, and P. S. L. Anderson. "Modeling biological puncture: Applying a mathematical model to physical experiments and biological diversity." Interdisciplinary Symposium: Fast Movements: Nature, Robotics and Materials. Duke University (Durham, NC, July 2022). Speaker: P. S. L. Anderson.
10. **B. Zhang**, and S. B. Hutchens. "Cutting-Driven Fracture and Its Microstructural-Length-Scale Sensitivity in Soft Elastomers." The Adhesion Society Annual Meeting (Charleston, SC, February 2020). Speaker: B. Zhang.
11. **B. Zhang**, A. Dou, and S. B. Hutchens. "Cutting-Driven Fracture and Fracture-Relevant Microstructural Length Scales in Soft Elastomers." 2019 SES Annual Technical Meeting (The Society of Engineering Science) (St. Louis, MO, October 2019). Speaker: B. Zhang.
12. **B. Zhang**, C.-S. Shiang, and S. B. Hutchens. "Cutting as a Tool for Investigating Crack-Blunting-Involved Soft Fracture." APS March Meeting (Boston, MA, March 2019). Speaker: B. Zhang.
13. **B. Zhang**, S. Yang, B. Bunch, and S. B. Hutchens. "Effect of Crack Tip Radius on Cutting Strength in Elastomers." SEM Annual Conference (The Society for Experimental Mechanics) (Greenville, SC, June 2018). Speaker: B. Zhang.
14. **B. Zhang** and S. B. Hutchens. "Cutting and the failure of hyperelastic solids." **Invited talk**, at 2018 Deformation, Yield, and Fracture of Polymers. Rolduc Abbey (Kerkrade, Netherlands, March 2018) Speaker: S. B. Hutchens.

15. **B. Zhang**, S. Yang, B. Bunch, K. Rivero Valles, and S. B. Hutchens. "Cutting as Intrinsic Strength in Crack-Blunting Amorphous Elastomeric Networks." SEM Annual Conference (The Society for Experimental Mechanics) (Indianapolis, IN, June 2017). Speaker: B. Zhang.

Invited Seminar

1. **B. Zhang**. "Fracture Mechanics and Failure Behavior of Soft Polymers". ENGR 5100 Engineering Seminar, Ingram School of Engineering, Texas State University (November 2025). Speaker: B. Zhang.
2. **B. Zhang**, C.-S. Shiang, and S. B. Hutchens. "Cutting of Hyperelastic Polymer Networks Using Y-Shaped Geometry". Fall 2018 Materials Science and Engineering Soft Materials Seminar (UIUC, IL, September 2018). Speaker: B. Zhang.

Poster Presentation

1. **B. Zhang**. "Contact-Based Failure in Soft Materials and Biological Systems." **Future Faculty Symposium, invited poster session**, at 2023 SES Annual Technical Meeting (Minneapolis, MN, October 2023).
2. **B. Zhang** and S. B. Hutchens. "On the relationship between cutting and tearing failure in soft elastic solids." 2021 SES Annual Technical Meeting (The Society of Engineering Science), Virtual Month (October 2021).
3. **B. Zhang**, A. Dou, and S. B. Hutchens. "Cutting-Driven Fracture and Fracture-Relevant Microstructural Length Scales in Soft Elastomers." **NSF Mechanics of Materials and Structures (MOMS) invited poster session**, at 2019 SES Annual Conference (St. Louis, MO, October 2019).
4. **B. Zhang**, C.-S. Shiang, and S. B. Hutchens. "Cutting Fracture in Hyperelastic Soft Solids." 4th annual workshop on Mechanics of Materials and Structures (Chicago, IL, August 2018).
5. **B. Zhang** and S. B. Hutchens. "Liquid-in-Solid Soft Composite Material." Graduate Research Symposium, University of Illinois Urbana-Champaign (Urbana, IL, November 2015).

Scholarly Grants and Contracts

Funded Grants and Contracts

1. **Principal Investigator,** Scholarship & Teaching Excellence Program (STEP) Scholarly Activity Funding, Texas State University, 2025-2026, $600.
2. **Principal Investigator,** Research Startup Grant, Texas State University

   Project: *Damage-Resistant Protective Architected Materials Inspired by Pangolin Armor*

   2025 – 2028, $500,000

Submitted, but not Funded Grants and Contracts:

1. **Principal Investigator**, Research Enhancement Program (REP), Division of Research, Texas State University

Project: *Artificial Skin Simulants with Multimodal Mechanical Biofidelity*

Proposed budget: $12,000

Media Coverage

University of Illinois News Bureau, 2024

EurekAlert!, 2024

NSF Research News, 2022

EurekAlert!, 2022

ScienceDaily, 2022

Popular Science, 2022

Mirage news, 2022

Phys.org, 2024

ScienceDaily, 2024

Phys.org, 2022

University of Illinois News Bureau, 2022

Illinois Alumni Magazine, 2022

Study Finds, 2022

Professional Societies and Organization Memberships

The Society for Experimental Mechanics (SEM)

The Society of Engineering Science (SES)

American Physical Society (APS)

Adhesion Society (AS)

The Society for Integrative and Comparative Biology (SICB)

Teaching and Mentoring Experience

Course Taught

Year/Semester	*University*	*Course*	*Credit Hours*	*Enrollment*	*Evaluation*
Spring 2026	Texas State University	*Machine Design* (ME 3314)	3	21	4.62/5
Fall 2025	Texas State University	*Machine Design* (ME 3314)	*3*	*35*	4.65/5
Spring 2018	University of Illinois Urbana-Champaign	*Experimental Stress Analysis* (TAM 456)	*3*	*21*	4.8/5

Guest Lectures

1. Title: Introduction to Fracture Mechanics

   Course: *Mechanics of Engineering Materials* (MAE 3270)
   Institution: Cornell University

Primary Instructor: Alan Zehnder
Date: 11/2024

2. Title: Mohr's circle, principal stress, scarf joint design

Course: *Mechanics of Engineering Materials* (MAE 3270)
Institution: Cornell University
Primary Instructor: Alan Zehnder
Date: 09/2024

3. Title: Finite element method and its applications in biomechanics

Course: *Biomechanics* (Biol 214)
Institution: College of the Holy Cross
Primary Instructor: Stephanie Crofts
Date: 09/2023

Teaching Assistantship

Teaching Assistant, University of Illinois Urbana-Champaign
Introductory Solid Mechanics (TAM 251) (Credit hours: 3) – Spring 2021
Introductory Solid Mechanics (TAM 251) (Credit hours: 3) – Fall 2020
Introductory Solid Mechanics (TAM 251) (Credit hours: 3) – Spring 2020
Experimental Stress Analysis (TAM 456) (Credit hours: 3) – Spring 2019
Experimental Stress Analysis (TAM 456) (Credit hours: 3) – Spring 2017
Fundamentals of Fluid Dynamics (TAM 310) (Credit hours: 4) – Fall 2015
Introductory Solid Mechanics (TAM 251) (Credit hours: 3) – Spring 2015

Teaching Assistant service for *Activity 2*, University of Illinois Urbana-Champaign **–** Summer 2020

- support for faculty retooling their courses for delivery in a student-centered, remote learning environment.
- development of interactive course materials, including voice-over slides, lecture videos, hands-on demonstrations in Mathematica, programmable, adaptive problem sheets and exams in PrairieLearn, and Latex scripts, etc.

Directed Student Learning and Mentoring

Undergraduate Mentoring

University	*Student*	*Years/Semesters*
Texas State University	Isabella Jimenez de Ferry	Spring 2026 - current
Texas State University	**Senior capstone design project** Project topic: Sit-to-Stand Training Device Student Team: Mathew Mendoza, Cameron Sumner,	Spring 2026 - current

	Ethan Mauricio Aguilar, Angel Gonzalez	
Cornell University	Matthew Reyes	Fall 2024 - Spring 2025
University of Illinois Urbana-Champaign	Bishal Baskota	2023-2024
University of Illinois Urbana-Champaign	Andrew Dou	2018-2019
University of Illinois Urbana-Champaign	Andrew Shiang	2018
University of Illinois Urbana-Champaign	Bryan Bunch	2017-2018
University of Illinois Urbana-Champaign	Steven Yang	2015-2016

Graduate Research Mentoring

University	*Student*	*Years/Semesters*
Texas State University	Sonjoy Chandra Debnath (master's)	Fall 2025-current
Texas State University	Arafat Anzir (doctoral)	Fall 2025-current
University of Illinois Urbana-Champaign	Lalith Krishna Samanth B	Fall 2020

Courses Prepared and Curriculum Development

1. University: Texas State University
   Course: *Machine Design* (ME 3314) (Credit hours: 3) – Fall 2025

2. University: University of Illinois Urbana-Champaign
   Course: *Experimental Stress Analysis* (TAM 456) (Credit hours: 3) – Spring 2018

Teaching Professional Development Activities Attended

Year/semester	*University*	*Activities*	*Note*
Fall 2025	Texas State University	*The Effective Communication and Discussions in the Classroom*	Faculty Success Workshop
Fall 2025 and Spring 2026	Texas State University	Scholarship & Teaching Excellence Program (STEP)	Faculty Workshop Series
Fall 2025	Texas State University	UDOIT Right! Accessibility Tools in Canvas	Webinar

Research Experience and Projects

2024-2025 **Postdoctoral Associate**, Cornell University, Sibley School of Mechanical and Aerospace Engineering

PIs: Dr. Alan T. Zehnder and Dr. Chung-Yuen Hui
Funded by NSF (*Grant No.*: CMMI-1903308)

Project Title: *Time-Dependent Fracture and Damage mechanics of Multiple Network Elastomers*

2021-2024 **Postdoctoral Research Associate**, University of Illinois Urbana-Champaign, School of Integrative Biology

PI: Dr. Philip S. L. Anderson
Funded by NSF (*Grant No.*: 1942906 CAR)

Project Title: *Exploring How Energetics Influences the Evolution of Biological Puncture Systems Across Phyla*

2016-2021 **Graduate Research Assistant**, University of Illinois Urbana-Champaign, Mechanical Science and Engineering

PI: Dr. Shelby B. Hutchens
Funded by NSF (*Grant No.*: 1562766)

Project Title: *Experimental Measurement of Tearing and Cutting in Highly Deformable Solids Relating to the Mechanical Origin of Crack Blunting-Mediated Toughness*

Dissertation Title: *Y-shaped cutting as a characterization method for the failure of soft elastic solids*

URL: https://www.ideals.illinois.edu/items/123307

2015-2016 **Graduate Research Assistant**, University of Illinois Urbana-Champaign, Mechanical Science and Engineering

PI: Dr. Shelby B. Hutchens
Funded by University of Illinois Urbana-Champaign

Project Title: *Fabrication and Mechanical Behavior of Liquid-in-Solid Soft Composites*

Thesis Title: *Fabrication and mechanical characterization of liquid-in-solid elastomeric soft composites*

URL: https://www.ideals.illinois.edu/items/93195

2013-2014 **Undergraduate Research Assistant**, Tongji University, Mechanical Engineering

PI: Dr. Qicai Zhou

Project Title: "*Bionic Topology Optimization Design Theory for Jib Structure of Large Cranes*"

May-Oct. 2013 **Undergraduate Research Assistant**, Tongji University, Mechanical Engineering

PI: Dr. Wenfeng Zhu

Project Title: "*Numerical Simulation of Thermal Forming Process of Thermal-mechanical-metallurgical coupling-oriented Auto-body High-Strength Steel Panel*"

Apr.-July 2013 **Undergraduate Research Assistant**, Tongji University, Mechanical Engineering

PI: Dr. Ying Xi

Independent Research

Fall 2014 **Independent Study** (ME 597), University of Illinois Urbana-Champaign, Mechanical Science and Engineering

Advisor: Dr. Shelby B. Hutchens

Academic Service

Institutional

Year/semester	*University*	*Department/School*	*Service activities*
Spring 2026	Texas State University	The 2026 Texas State University STEM Conference	Judge for poster session
Fall 2025-current	Texas State University	Ingram School of Engineering	Search Committee Member: Assistant/Associate Professor of Instruction in Mechanical Engineering
Fall 2025-current	Texas State University	Ingram School of Engineering	Search Committee Member: Assistant Professor in Mechanical Engineering (Solid Mechanics)
Fall 2025-current	Texas State University	Ingram School of Engineering	Research Committee
Fall 2025-current	Texas State University	Ingram School of Engineering	ABET accreditation
Fall 2025-current	Texas State University	Ingram School of Engineering	Mechanical Engineering (ME) career advising
Fall 2023	University of Illinois	The Department of Evolution, Ecology, and Behavior	Post-doc Panel for professional development

	Urbana-Champaign		
Fall 2016	University of Illinois Urbana-Champaign	The Department of Mechanical Science and Engineering	Poster judge: ME 300 Poster Session

Journal Reviewer

Nature Communications *International Journal of Fracture* *Soft Matter*
Polymer Testing *Engineering Applications of Artificial Intelligence*
Integrative and Comparative Biology

Synergistic Activities and Professional Development

Outreach

June 2018 UIUC Women's Basketball Camp. One-hour activity, "Polymers: Sole solution," introducing female, young basketball players to elastomers via shoe sole fabrication and testing.

Professional Development Activities

Year/semester	*University*	*Activities*	*Note*
Spring 2026	Texas State University	Scholarship & Teaching Excellence Program (STEP)	Faculty Success Workshop Series
Spring 2026	Texas State University	Make Your CAREER with TXST: NSF CAREER Training Series	Faculty Success Workshop Series
Spring 2026	Texas State University	The Grant Writer's Guide to the Galaxy: Foundations for Grant Writing	Faculty Success Workshop
Spring 2026	Texas State University	Faculty Focus: Research GPS: Charting Your Course Through Managing Awards	Faculty Success Workshop
Fall 2025	Texas State University	Scholarship & Teaching Excellence Program (STEP)	Faculty Success Workshop Series
Fall 2025	Texas State University	Tenure and Promotion to Associate Professor: Advice for Assistant Professors	Webinar
Fall 2025	Texas State University	UDOIT Right! Accessibility Tools in Canvas	Webinar

Fall 2025	Texas State University	Research Development Meeting w/ISoE 1st/2nd year Asst Professors	Seminar - Research Development Support for Faculty, Division of Research
October 2023		Faculty panel, Future Faculty Symposium	2023 SES Annual Technical Meeting, Minneapolis, MN
Spring 2020	University of Illinois Urbana-Champaign	Mavis Future Faculty Fellows (MF3) Program Seminar Series	
Spring 2020	University of Illinois Urbana-Champaign	Mavis Future Faculty Fellows (MF3) Grant Writing Workshop	
July 2019	University of Illinois Urbana-Champaign	Faculty Job Search Retreat	