Safeer Farrukh Siddicky, Ph.D.

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CONTACT INFORMATION

The University of Texas at Austin
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Background

EDUCATION

University of Missouri-Kansas City — **Kansas City, MO**
Doctor of Philosophy, Engineering and Biomedical & Health Informatics — August 2015 - May 2018
Master of Science, Mechanical Engineering — August 2013 - May 2015

Georgia Institute of Technology — **Atlanta, GA**
Bachelor of Science, Mechanical Engineering — August 2009 - May 2013

PROFESSIONAL EXPERIENCE

The University of Texas at Austin — **Austin, TX**
Department of Kinesiology and Health Education — Jan 2022 - present
Assistant Professor of Instruction

- Instructed coursework (theory + lab techniques) in biomechanics, motor learning & development
- Coordinated research schedules and maintained shared biomechanics research labs
- Served on Ph.D. Comprehensive Committees, M.S. Thesis Committees, and M.Ed. Report Reader

Boise State University — **Boise, ID**
Department of Mechanical and Biomedical Engineering — Jul 2020 - Dec 2021
Adjunct Graduate Faculty & Research Scientist; Advisor: Erin M. Mannen, Ph.D.

- Led industry and federally funded biomechanics research studies on infant movement
- Authored federal grant proposals, technical reports, and study (IRB) protocols
- Instructed coursework in biomechanics theory, laboratory techniques, and MATLAB programming
- Served on M.S. thesis committee and supervised graduate, undergraduate & medical students

University of Arkansas for Medical Sciences — **Little Rock, AR**
Department of Orthopaedic Surgery — Aug 2018 - Jul 2020
Post Doctoral Fellow; Advisor: Erin M. Mannen, Ph.D.

- Led orthopedic biomechanics research studies on healthy and pathologic infant movement
- Co-authored federal grant proposals, technical reports, and study protocols
- Supervised graduate students, medical students, and undergraduate interns

University of Missouri-Kansas City — **Kansas City, MO**
Human Motion Laboratory & Center for Health Insights — May 2014 - May 2018
Graduate Research Assistant; Advisor: Gregory W. King, Ph.D.

- Designed and conducted biomechanical research on occupational ergonomics and clinical performance

Medical Positioning Inc. (MPI) — **Kansas City, MO**
Product Development Intern — June 2016 - August 2016

- Developed prototype components for Class 1 medical devices (echocardiography imaging tables)

Georgia Institute of Technology — **Atlanta, GA**
Undergraduate Research Assistant — January 2012 - May 2013

Research

PUBLICATIONS (PEER REVIEWED: IN PRINT, IN PRESS, OR ACCEPTED)

†MENTORED STUDENT

1. **Siddicky SF**, Wilson C, Leshner M, Whitaker B, Carroll J, Mannen EM, "Airflow, firmness, and CO_2 inhalation characteristics of commercial infant sleep products," *ASTM Journal of Testing and Evaluation*, 53(6):1438–1452, 2025.
2. Havens KL, **Siddicky SF**, "Characterizing kinematics, kinetics, and muscle activity of postpartum mothers lifting their own infants during three everyday tasks," *Journal of Biomechanics*, 189:112797, 2025.
3. Siegel DN†, **Siddicky SF**, Davis WD†, Mannen EM, "Infant muscle activity is modified by inclined environments during different styles of rolling," *Infant Behavior and Development*, 79:102049, 2025.
4. Smith J†, **Siddicky SF**, Hsiao H, "Wearable Visual Biofeedback of Vertical Ground Reaction Force Enables More Symmetrical Force Production During Deadlifting and Squatting," *Biomechanics*, 5(1):6, 2025.
5. Smith J†, Parikh D, Tate V, **Siddicky SF**, Hsiao H, "Validity of Valor Inertial Measurement Unit for Upper and Lower Extremity Joint Angles," *Sensors*, 24(17):5833, 2024.
6. Siegel DN†, **Siddicky SF**, Davis WD†, Mannen EM, "Mechanical Environment Influences Muscle Utilization During Infant Rolling," *Human Movement Science*, 95:103208, 2024.
7. Siegel DN†, **Siddicky SF**, Davis WD†, Mannen EM, "Muscle Activation and Coordinated Movements of Infant Rolling," *Journal of Biomechanics*, 162:111890, 2024.
8. **Siddicky SF**, Eckles JP†, Kee J, Rabenhorst B, Mannen EM, "Ultrasonographic evaluation of infant hips in the Pavlik harness and body-worn commercial baby carriers," *Journal of Orthopaedic Research*, 41(11):2495-2500, 2023. *Shortlisted for the 2024 Orthopaedic Research Society William H. Harris Award
9. Lim Y, Chambers T, Walck C, **Siddicky SF**, Mannen EM, Huayamave V, "Challenges in kinetic-kinematic driven musculoskeletal subject-specific infant modeling", *Mathematical and Computational Applications - Special Issue "Computational Methods for Coupled Problems in Science and Engineering"*, 27(3):36, 2022.
10. Akhter S, Jain SF, Ishihara R,**Siddicky SF**, High R, Suh DW, "The Prevalence of Work-Related Musculoskeletal Disease among Pediatric Ophthalmologists: Are Ergonomic Innovations Needed?," *Clinical Ophthalmology*, 16:833-40, 2022.
11. Wang J, **Siddicky SF**, Carroll J, Rabenhorst B, Bumpass DB, Whitaker B, Mannen EM, "Infant inclined sleep product safety: a model for using biomechanics to explore safe infant product design," *Journal of Biomechanics*, 128:110706, 2021.
12. Wang J, **Siddicky SF**, Johnson T, Kapil N, Majmudar B, Mannen EM, "Supine lying center of pressure characteristics as a predictor of developmental stages in early infancy," *Technology and Healthcare*, 30(1):43-49, 2021.
13. Wang J, Severin C, **Siddicky SF**, Barnes CL, Mannen EM, "Effect of movement speed on lower and upper body biomechanics during sit-to-stand-to-sit transfers: self-selected speed vs. fast imposed speed," *Human Movement Science*, 77:102797, 2021.
14. Wang J, **Siddicky SF**, Dohm M, Barnes CL, Mannen EM, "Kinematic and kinetic changes following Total Hip Arthroplasty during sit-to-stand transfers: systematic review," *Arthroplasty Today*, 7:148-156, 2021.
15. **Siddicky SF**, Wang J, Rabenhorst B, Buchele L†, Mannen EM, "Exploring infant hip position and muscle activity in common baby gear and orthopedic devices," *Journal of Orthopaedic Research*, 39(5):941-9, 2021. *Shortlisted for the 2021 Orthopaedic Research Society William H. Harris Award
16. Wang J, **Siddicky SF**, Carroll J, Rabenhorst B, Bumpass DB, Whitaker BN, Mannen EM, "Do inclined sleeping surfaces impact infants' activity and movement? A safe sleep product design perspective," *Journal of Biomechanics*, 111:109999, 2020.
17. **Siddicky SF**, Bumpass DB, Krishnan AR, Tackett SA, Mccarthy RE, Mannen EM, "Positioning and baby devices impact infant spinal muscle activity," *Journal of Biomechanics*, 104:109741, 2020.

18. Sherrill JT†, **Siddicky SF**, Davis WD†, Chen C, Bumpass DB, Mannen EM, "Validation of a Customized Spine Biomechanics Simulator: A Case for Field Standardization," *Journal of Biomechanics*, 98:109470, 2020.
19. Wang J, Mannen EM, **Siddicky SF**, Lee J, Latt LD, "Gait alterations in posterior tibial tendonitis: A systematic review and meta-analysis," *Gait & Posture*, 76:28-38, 2020.
20. Bonafede L, Kazmierczak L, **Siddicky SF**, Gunton KB, "Ergonomics in Strabismus Surgery," *Current Opinion in Ophthalmology*, 30(5):331-6, 2019.
21. Wang J, **Siddicky SF**, Oliver T, Dohm M, Barnes CL, Mannen EM, "Biomechanical changes following Knee Arthroplasty during sit-to-stand transfers: systematic review," *Journal of Arthroplasty*, 34(10):2494-2501, 2019.
22. Branson BG, Abnos RM†, Simmer-Beck ML, King GW, **Siddicky SF**, "Using Motion Capture Technology to Measure the Effects of Magnification Loupes on Dental Operator Posture: A Pilot Study," *WORK: A Journal of Prevention, Assessment, and Rehabilitation*, 59(1):131-9, 2018.

Publications (peer reviewed: under review, under revision, or in preparation)

23. **Siddicky SF**, Olitsky SE, King GW, "Biomechanical assessment of positional adjustments and ophthalmologist ergonomics during refraction and strabismus exams," *Technology and Healthcare*, (under revision).
24. **Siddicky SF**, Olitsky SE, King GW, "Quantitative Evaluation of Eye Care Provider Posture during Slit Lamp examination using Kinematic Motion Analysis and Electromyography," *Applied Ergonomics*, (under revision).

Peer-Reviewed Conference Proceedings (Oral/Podium Presentations)

†Mentored Student

§Senior Author

1. **Siddicky SF**, Cai Y, Zou Y, Havens KL, "Characterizing the muscle activity of postpartum mothers during three infant lifting tasks," American Society of Biomechanics Annual Meeting, Knoxville, TN, August 2023.
2. **Siddicky SF**, Eckles JP†, Wang J, Dalal SS†, Rabenhorst B, Kee J, Mannen EM, "Ultrasound evaluation of healthy infant hips in the Pavlik harness and commercial baby carriers," Orthopaedic Research Society Annual Meeting, Tampa, FL, February 2022.
3. Siegel DN†, Davis WD†, Prow A†, Scholes O†, Mannen EM, **Siddicky SF**§, "The Unexplored Milestone: Kinematics and Muscle Utilization of How Babies Roll," American Society of Biomechanics Annual Conference, Atlanta, GA, August 2021. (virtual)
4. **Siddicky SF**, Rabenhorst B, Aronson EA, Wang J, Mannen EM, "Lower extremity biomechanics of healthy infants, infants with hip instability, and infants treated for developmental dysplasia of the hip with the Pavlik harness," Canadian Society of Biomechanics Annual Conference, Montreal, Canada, May 2021.
5. **Siddicky SF**, Wang J, Rabenhorst B, Aronson EA, Mannen EM, "Lower extremity muscle activity and hip range of motion of infants with hip dysplasia: how does it compare to healthy infants?," Mid-South Biomechanics Conference, Memphis, TN, February 2020.
6. **Siddicky SF**, Rabenhorst B, Wang J, Aronson E, McCoy A†, Casper E†, Mohler SA†, Mannen EM, "Biomechanical changes following Pavlik harness treatment for developmental dysplasia of the hip," Orthopaedic Research Society Annual Meeting, Phoenix, AZ, February 2020. *Presentation to the ORS Hip Dysplasia Research Interest Group*
7. **Siddicky SF**, Wang J, Tackett SA, Bumpass DB, Mccarthy R, Rabenhorst B, Mannen EM, "Daily infant positioning and its implications on long-term spine and lower extremity health," South Central American Society of Biomechanics Meeting, Plano, TX, April 2019.
8. **Siddicky SF**, Mozafari H, King GW, Suh D, "Redesigning surgical magnification loupes: Effect of angle of declination, weight, and strap design on the postural ergonomics of ophthalmic surgeons," American Academy of Pediatric Ophthalmology and Strabismus 45th Annual Meeting, San Diego, CA, March 2019. DOI: https://doi.org/10.1016/j.jaapos.2019.08.034
9. **Siddicky SF**, Buchele L†, Tackett SA, Rabenhorst B, Mannen EM, "Infant Hip Position and Lower Extremity Muscle Activity in an Inward Facing Babycarrier and the Pavlik Harness," Gait and Clinical Movement Analysis Society Annual Conference, Frisco, TX, March 2019.

10. **Siddicky SF**, Wang J, Bumpass DB, McCarthy R, Tackett SA, Mannen EM, "Infant muscle activity during tummy time: Implications for musculoskeletal development," Mid-South Biomechanics Conference, Memphis, TN, February 2019.
11. **Siddicky SF**, Akhter S, Suh D, "Surgical Loupe Customization to Improve Ergonomics Among Ocular Surgeons," 19th Annual Meeting of the American Academy of Ophthalmology, Chicago, IL, October 2018.
12. **Siddicky SF**, King GW, Olitsky SE, "Evaluating the Postural Ergonomics of Ophthalmologists using Kinematic Motion Analysis and Electromyography," 42nd Annual Meeting of the American Society of Biomechanics, Rochester, MN, August 2018. *Presentation to the American Society of Biomechanics Doctoral Competition

Peer-Reviewed Conference Proceedings (Posters)

†Mentored Student

§Senior Author

13. **Siddicky SF**, Havens KL, "Effects of lifting task and infant weight on lumbopelvic muscle activity, kinematics, and kinetics in nulliparous women," 10th World Congress of Biomechanics, Vancouver, BC, Canada, July 2026.
14. Whitaker BN, **Siddicky SF**, Carroll JL, Mannen EM, "Self-Rescue: A New Paradigm for Understanding an Infant's Ability to Self-Protect from Life-Threatening Respiratory Threats in Nursery Products," Society of Pediatric Psychology Annual Conference, Las Vegas, NV, April 2026.
15. **Siddicky SF**, Leon M, Havens KL, "Heavy lifts, small bodies: The influence of task and weight in infant lifting mechanics," American Society of Biomechanics Annual Meeting, Pittsburgh, PA, August 2025.
16. Havens KL, **Siddicky SF**, "The Mother Load: Biomechanics of Lifting Infants Postpartum," 30th Congress of the International Society of Biomechanics, Stockholm, Sweden, July 2025.
17. Siegel DN†, **Siddicky SF**, Davis WD†, Mannen EM, "Infant Rolling Coordination Depends on the Mechanical Environment," American Academy of Pediatrics National Conference and Exhibition, Washington, DC, October 2023.
18. Olvera HL†, Brittain AR†, Mannen EM, **Siddicky SF**§, "Strategies utilized by nulliparous women while negotiating stairs during four modes of infant carriage," American Society of Biomechanics Annual Meeting, Knoxville, TN, August 2023.
19. Olvera HL†, Brittain AR†, Mannen EM, **Siddicky SF**§, "Infant carriage strategies utilized by nulliparous women while negotiating stairs," Northwest Biomechanics Symposium, Seattle, WA, May 2023.
20. **Siddicky SF**, Cai Y, Zou Y, Havens KL, "Characterizing the muscle activity of postpartum mothers during three infant lifting tasks," South Central American Society of Biomechanics Meeting, Fort Worth, TX, March 2023.
21. Siegel DN†, **Siddicky SF**, Davis WD†, Mannen EM, "Muscle Activation of Infant Rolling Movements on a Flat Surface," American Academy of Pediatrics National Conference and Exhibition, Anaheim, CA, October 2022.
22. Siegel DN†, **Siddicky SF**, Davis WD†, Mannen EM, "Muscle Utilization of How Babies Achieve a Roll," 9th World Congress of Biomechanics, Taipei, Taiwan, July 2022.
23. Olvera HL†, Brittain AR†, Mannen EM, **Siddicky SF**§, "Spatiotemporal Biomechanics of Caregivers Carrying Infants in an Outdoor Setting," 23rd Annual University of Maryland National Conference for McNair Scholars and Undergraduate Research, College Park, MD, March 2022.
24. **Siddicky SF**, Huayamave V, Mannen EM, "A novel method to quantify continuous kicking force from infants wearing a Pavlik harness," Orthopaedic Research Society Annual Meeting, Tampa, FL, February 2022.
25. Olvera HL†, **Siddicky SF**, Mannen EM, "Quantifying the Spatiotemporal Characteristics and Biomechanics of Parents Carrying Infants in a Non-Laboratory Setting," Annual Biomedical Research Conference for Minority Students, November 2021. (virtual)
26. Mannen EM, Wang J, **Siddicky SF**, Carroll JC, Rabenhorst BM, Bumpass DB, Whitaker BN," Is This Safe for Baby? Using Biomechanics to Explore Safety of Inclined Sleepers," American Society of Biomechanics Annual Conference, Atlanta, GA, August 2021. (virtual)

27. Siegel DN†, **Siddicky SF**, Davis WD†, Prow A†, Scholes O†, Mannen EM, "The Unexplored Milestone: Kinematics and Muscle Utilization of How Babies Roll," 16th Annual Northwest Biomechanics Symposium, Salem & Corvallis, OR, July 2021. (virtual)
28. Huayamave V, Lim Y, Walck C, Mannen EM, **Siddicky SF**, "Estimating infant hip joint moments using a novel musculoskeletal model," Orthopaedic Research Society Annual Meeting, February 2021. (virtual)
29. Mannen, EM, Wang J, **Siddicky SF**, Johnson TL, Kapil N, Majmudar B, "Does supine lying center of pressure movement predict normal developmental stages in early infancy?," American Academy of Pediatrics Virtual National Conference and Exhibition, October 2020. (virtual)
30. **Siddicky SF**, Wang J, Hefley W†, Rabenhorst B, Aronson EA,Mannen EM, "Does the Pavlik harness treatment cause lower extremity biomechanical changes in infants?," American Society of Biomechanics Annual Conference, Atlanta, GA, August 2020. (virtual)
31. Wang J, **Siddicky SF**, Carroll JL, Rabenhorst BM, Bumpass DB, Whitaker BN, Mannen EM, "Do inclined sleeping surfaces impact infants' upper body muscle activity and movement?," American Society of Biomechanics Annual Conference, Atlanta, GA, August 2020. (virtual)
32. Johnson TL, Kapil N, Escapita A, Majmudar B, **Siddicky SF**, Wang J, Mannen EM, "Artificial Intelligence-Based Quantification of the General Movement Assessment Using Center of Pressure Patterns in Healthy Infants," Association for Clinical and Translational Science Conference, Washington, DC, April 2020.
33. Akhter S, **Siddicky SF**, High R, Jain SF, Suh D, "The incidence of work-related musculoskeletal disease among pediatric ophthalmologists: are ergonomic innovations needed?," American Academy of Pediatric Ophthalmology and Strabismus 46th Annual Meeting, Austin, TX, March 2020.
34. Wang J, **Siddicky SF**, Carroll J, Rabenhorst B, Bumpass DB, Whitaker BN, Mannen EM, "Do inclined sleeping surfaces impact infants' upper body muscle activity and movement? A safe sleep product design perspective," Mid-South Biomechanics Conference, Memphis, TN, February 2020.
35. Wang J, **Siddicky SF**, Johnson T, Kapil N, Majmudar B, Mannen EM, "Supine lying center of pressure characteristics as a predictor of developmental stages in early infancy," Mid-South Biomechanics Conference, Memphis, TN, February 2020.
36. Wang J, **Siddicky SF**, Johnson T, Kapil N, Majmudar B, Mannen EM, "Can the complexity of supine lying center of pressure detect developmental disorders in young infants?," Southeast Regional Institutional Development Award (IDeA) Conference, Louisville, KY, November 2019.
37. **Siddicky SF**, Rabenhorst B, Wang J, Aronson E, McCoy A†, Casper E†, Mohler SA†, Mannen EM, "The biomechanics of infants treated for developmental dysplasia of the hip with the Pavlik harness," Southeast Regional Institutional Development Award (IDeA) Conference, Louisville, KY, November 2019.
38. Kapil N, Escapita A, Simpson, H, **Siddicky SF**, Wang J, Mannen EM, Johnson T, "Quantification of the General Movement Assessment Using Center of Pressure Patterns in Healthy Infants," 47th Annual Child Neurology Society Meeting, Charlotte, NC, October 2019.
39. Kapil N, Escapita A, Simpson, H, **Siddicky SF**, Wang J, Mannen EM, Johnson T, "Quantification of the General Movement Assessment Using Center of Pressure Patterns in Healthy Infants," Biomedical Engineering Society Annual Meeting, Philadelphia, PA, October 2019.
40. **Siddicky SF**, Wang J, Bumpass DB, McCarthy R, Tackett SA, Mannen EM, "The importance of prone time in the healthy musculoskeletal development of infants," XXVII Congress of the International Society of Biomechanics & 43rd Annual Meeting of the American Society of Biomechanics, Calgary, Canada, July 2019.
41. Sherrill JT†, **Siddicky SF**, Davis WD†, Dalal SS†, Mannen EM, "Validation of a Novel Spine Biomechanics Simulator," XXVII Congress of the International Society of Biomechanics & 43rd Annual Meeting of the American Society of Biomechanics, Calgary, Canada, July 2019.
42. Huayamave V, Mannen EM, Stanton N, Walck C, **Siddicky SF**, Price C, "A novel computational model of babywearing to predict growth and development of the pediatric hip joint," VIII International Conference on Coupled Problems in Science and Engineering, Sitges, Spain, June 2019.

43. Wang J, **Siddicky SF**, Johnson T, Kapil N, Tackett SA, Mannen EM, "Supine lying center of pressure as a predictor of developmental disorders in early infancy," South Central American Society of Biomechanics Meeting, Plano, TX, April 2019.
44. Stanton N, **Siddicky SF**, Price C, Mannen EM, Huayamave V, "Biomechanics of Babywearing: Implications For Hip Joint Development," 29th International Pediatric Association Congress, Panama City, Panama, March 2019.
45. Sherrill JT†, **Siddicky SF**, Davis WD†, Chen C, Mannen EM, "Validation of a novel spine biomechanics simulator," Mid-South Biomechanics Conference, Memphis, TN, February 2019.
46. **Siddicky SF**, Rabenhorst B, Tackett SA, Buchele L†, Mannen EM, "Lower extremity hip position and muscle activity during babywearing in soft structured baby carriers: Implications for developmental dysplasia of the hip," Orthopaedic Research Society Annual Meeting, Austin, TX, February 2019.
47. **Siddicky SF**, King GW, Olitsky SE, "Positional Adjustments to Patients and Equipment May Reduce the Possibility of Musculoskeletal Diseases in Ophthalmologists During Retina Examinations at Slit Lamp," 8th World Congress of Biomechanics, Dublin, Ireland, July 2018.
48. **Siddicky SF**, King GW, Olitsky SE, "Postural considerations during retina examination at the slit lamp: Positional adjustments to patients and equipment may reduce the risk of musculoskeletal symptoms in ophthalmologists," American Academy of Pediatric Ophthalmology and Strabismus 44th Annual Meeting with the International Strabismological Association, Washington, DC, March 2018.
49. **Siddicky SF**, Abnos RM†, Muller MA†, King GW, Olitsky SE, "Evaluating Ergonomics in Ophthalmology Using Kinematic Motion Analysis: A Pilot Study," 18th Annual Meeting of the American Academy of Ophthalmology, New Orleans, LA, November 2017.
50. Abnos RM†, **Siddicky SF**, Muller MA†, Branson B, Simmer-Beck M, King GW, "Postural Evaluation of Dental Care Professionals using Motion Analysis and Electromyography," 41st Annual Meeting of the American Society of Biomechanics, Boulder, CO, August 2017.
51. Abnos RM†, Branson BS, Simmer-Beck ML, **Siddicky SF**, King GW, "Motion Capture Technology as a Method for Measuring the Effect of Magnification Lenses on Dental Clinician Posture: A Pilot Study," 7th International Conference on Applied Human Factors and Ergonomics, Orlando, FL, July 2016.
52. Hoffman M, **Siddicky SF**, Balakrishnan B, King GW, "3D Motion Analysis of Clinical Performance: A New Big Data Opportunity," American Medical Informatics Association Joint Summits on Translational Science, San Francisco, CA, March 2016.

Technical Reports

1. United States Consumer Product Safety Commission (CPSC), "Crib Bumper Product Characterization and Testing," Co-author on the Boise State Study presented as a technical report published by the CPSC. January 2023.
2. United States Consumer Product Safety Commission (CPSC), "Pillows Product Characterization and Testing," Co-author on the Boise State Study presented as a technical report published by the CPSC. October 2022.
3. United States Consumer Product Safety Commission (CPSC), "Biomechanical Analysis of Inclined Sleep Products," Co-author on the Mannen Study presented as part of a notice of proposed rulemaking for infant inclined sleep products published by the CPSC. October 2019.
4. Electric Power Research Institute, "Filming Product/Amine Impact on Condensate Deep Bed Resin Polishers: Comparison of Four Commercial Products," Contributor to EPRI Report #3002008140, December 2016.

Grant and Proposal Involvement

(Principal Investigator)

1. University of Texas at Austin Professional-Track Faculty Conference Attendance Program (PCAP) Grant
   Title: *2026-27 PCAP Grant*
   Period: 06/02/2026 - 11/21/2026
   Amount: $ 1,400
   Role: Principal Investigator
   Status: Awarded
2. University of Texas at Austin Faculty Travel Grant (FTG)
   Title: *2025-26 Faculty Travel Grant*
   Period: 03/12/2026 - 07/16/2026
   Amount: $ 1,400
   Role: Principal Investigator
   Status: Awarded
3. University of Texas at Austin Professional-Track Faculty Conference Attendance Program (PCAP) Grant
   Title: *2025-26 PCAP Grant*
   Period: 08/15/2025 - 11/22/2025
   Amount: $ 1,400
   Role: Principal Investigator
   Status: Awarded
4. University of Texas at Austin Faculty Travel Grant (FTG)
   Title: *2024-25 Faculty Travel Grant*
   Period: 05/29/2025 - 08/17/2025
   Amount: $ 1,400
   Role: Principal Investigator
   Status: Awarded
5. Thrasher Research Fund Early Career Award
   Title: *Quantifying Pavlik harness forces on infants: Applications in developmental dysplasia of the hip*
   Period: 06/01/2019 - 05/31/2020
   Amount: $ 25,000
   Role: Principal Investigator
   Status: Not Awarded
6. University of Missouri School of Graduate Studies Research Grant
   Title: *Correlating motion analysis data from simulated Endotracheal Intubation (ETI) to patient outcomes extracted from Electronic Health Record (EHR)*
   Period: 6/1/16 - 5/31/17
   Amount: $7,500
   Role: Principal Investigator
   Status: Awarded

Grant and Proposal Involvement

(Co-Investigator)

3. United States Consumer Product Safety Commission
   Title: *Infant Biomechanics and Suffocation Research*
   Period: 10/01/2020 - 09/30/2021
   Amount: $374,507 ($302,587 direct)
   Role: Co-Investigator
   Status: Awarded
4. Iron Mountains, LLC
   Title: *Biomechanics of Infant Rolling*
   Period: 06/30/2020 - 07/31/2021
   Amount: $194,541
   Role: Co-Investigator
   Status: Awarded
5. UAMS Center for Musculoskeletal Disease Research Pilot Project, NIH 1P20GM125503
   Title: *A Multi-Scale Biomechanical Model of the Infant Hip to Progress Innovation in Pediatric Hip Dysplasia Rehabilitation*
   Period: 05/01/2019 - 06/30/2020

Amount: $200,000
Role: Co-Investigator
Status: Awarded

6. Boba, Inc.
   Title: *Impact of position on infant biomechanics*
   Period: 08/01/2018 - 06/30/2020
   Amount: $39,961 ($31,724 direct)
   Role: Co-Investigator
   Status: Awarded
7. International Hip Dysplasia Institute
   Title: *An ultrasonographic approach to assessing hip alignment and the efficacy of the abduction brace compared to common infant devices*
   Period: 02/01/2019 - 02/01/2020
   Amount: $17,650
   Role: Co-Investigator
   Status: Awarded
8. United States Consumer Product Safety Commission
   Title: *Biomechanical Analysis of Inclined Sleeper Infant Products*
   Period: 09/01/2018 - 09/30/2019
   Amount: $248,432 ($197,787 direct)
   Role: Co-Investigator
   Status: Awarded
9. UAMS Center for Musculoskeletal Disease Research Pilot Project
   Title: *Biomechanics of non-surgically treated infants with developmental hip dysplasia*
   Period: 08/01/2018 - 06/30/2019
   Amount: $65,000
   Role: Co-Investigator
   Status: Awarded
10. UAMS Center for Musculoskeletal Disease Research Start-up Funding
    Title: *How do babies move? Exploring the biomechanical impact of positioning and baby gear*
    Period: 07/01/2018 - 1/31/2019
    Amount: $75,000
    Role: Co-Investigator
    Status: Awarded
11. Eunice Kennedy Shriver National Institute of Child Health and Human Development FOA: HD20-005 Research Project Grants in Pediatric Rehabilitation (R01 Clinical Trial Option)
    Title: *A Multi-Scale Biomechanical Model of the Infant Hip to Progress Innovation in Pediatric Hip Dysplasia Rehabilitation*
    Period: 7/1/2020 - 6/30/2024
    Amount: $1,865,946 ($1,250,000 direct)
    Role: Co-Investigator
    Status: Not Awarded
12. United States Consumer Product Safety Commission
    Title: *Evaluating the Strength of Infants*
    Period: 9/1/18 - 8/30/20
    Amount: $ 1,934,304
    Role: Co-Investigator
    Status: Not Awarded

Grant and Proposal Involvement

(Project Manager)

13. National Institutes of Health
    Title: *Biomechanical Mechanism underlying Perturbation-Based Tai Chi Effect on Dynamic Stability in Older Adults (Resubmission)*
    Period: 8/1/25 - 7/31/30
    Amount: $3,189,730
    Role: Project Manager / Research Coordinator
    Status: Not Awarded

14. National Institutes of Health
    Title: *Poststroke personalized brain state-dependent TMS*
    Period: 7/1/25 - 6/30/30
    Amount: $3,680,979
    Role: Project Manager / Research Coordinator
    Status: Not Awarded
15. National Institutes of Health
    Title: *Characterizing the effects of striatal network-targeted stimulation on episodic memory and striatal and hippocampal network function in healthy adults*
    Period: 6/5/24 - 4/1/25
    Amount: $2,619,961
    Role: Project Manager / Research Coordinator
    Status: Not Awarded
16. National Institutes of Health
    Title: *Biomechanical Mechanism underlying Perturbation-Based Tai Chi Effect on Dynamic Stability in Older Adults*
    Period: 8/1/23 - 7/31/28
    Amount: $ 3,057,893
    Role: Project Manager / Research Coordinator
    Status: Not Awarded
17. Army - Department of Defense
    Title: *Vibration therapy for anterior cruciate ligament injury reconstructive surgery recovery*
    Period: 9/1/23 - 8/31/27
    Amount: $ 2,500,000
    Role: Project Manager / Research Coordinator
    Status: Not Awarded
18. National Institutes of Health
    Title: *Wearables to structurally remodel user muscles and improve walking ability across the lifespan*
    Period: 9/1/23 - 8/31/25
    Amount: $ 448,873
    Role: Project Manager / Research Coordinator
    Status: Not Awarded

Grant and Proposal Involvement

(Research Assistant)

16. University of Missouri System Interdisciplinary Intercampus Research Program
    Title: *Informatic and Architectural Analysis of Human Performance in a Clinical Simulation Setting*
    Period: 8/1/14 - 7/31/15
    Amount: $94,640
    Role: Research Assistant
    Status: Awarded
17. National Institutes of Health
    Title: *Virtual Pelvic Surgery Simulator for the Prevention of Surgical Errors*
    Period: 9/1/17 - 9/1/20
    Amount: $610,476
    Role: Research Assistant and Co-Author
    Status: Not Awarded
18. United States Department of Defense
    Title: *Quantitative & Qualitative Clinical Skills Assessment & Correlation with Patient Outcomes*
    Period: 9/1/16 - 2/28/19
    Amount: $1,237,904
    Role: Research Assistant and Co-Author
    Status: Not Awarded

Teaching

Courses Taught

1. Applied Biomechanics of Human Movement (KIN 320; 4 semesters at UT)
2. Biomechanics Laboratory Techniques (KIN 382-4; 2 semesters at UT)
3. Biomechanics of Sport (KIN 395-4; 2 semesters at UT)
4. Motor Development and Performance (KIN 321M; 8 semesters at UT)
5. Motor Learning (KIN 335C; 6 semesters at UT)
6. Neuromuscular Control (KIN 336; 3 semesters at UT)
7. Introduction to Computation for Engineers (ME 273; 1 semester at BSU)
8. Laboratory Techniques in Biomechanics (ME 520/KINES 525; 1 semester at BSU)
9. Introduction to Solid Biomechanics (ME 356; 1 semester at BSU)
10. MATLAB Applications in Neurobiology (NBDS 5125; 1 semester at UAMS)
11. Instrumentation and Measurements Laboratory (ME 352; 2 semesters at UMKC)

Invited Lectures

1. Beck ON, Buchanan P, Farr B, Freedberg M, Griffin L, Hatfield K, Hsiao H, Hussain S, Jowers E, Phan K, **Siddicky, SF**, "What to know about the Movement and Cognitive Rehabilitation Science Faculty", 2022-23 McCraw Lecture Series, The University of Texas at Austin, Austin, TX, January 27, 2023.
2. **Siddicky SF**, "Positioning Matters: A spectrum of musculoskeletal health from infancy to adulthood", KIN 197C/397C Movement and Cognitive Rehabilitation Science Seminar, The University of Texas at Austin, Austin, TX, November 22, 2021.
3. **Siddicky SF**, Wang J, "Gait Analysis in Orthopaedics", UAMS Orthopaedic Surgery Residency Program Lecture Series, University of Arkansas for Medical Sciences, Little Rock, AR, April 29, 2020.
4. **Siddicky SF**, "Electromyography: Concepts and Applications", UAMS Biomechanics Summer Lecture Series, University of Arkansas for Medical Sciences, Little Rock, AR, July 08, 2019.
5. **Siddicky SF**, "Analysis of Human Performance in a Clinical Simulation Setting using 3D motion capture", guest lecture to Bioinformatics Students in MEDB 5540 Multidisciplinary Graduate Seminar (Mary Gerkovich, instructor), School of Medicine, University of Missouri-Kansas City, Kansas City, MO, September 28, 2015
6. **Siddicky SF**, "Medical skill evaluation in a simulated clinical setting using biomechanical motion analysis", guest lecture to Interdisciplinary Motion Analysis Group, Kansas City, MO, May 13, 2015
7. **Siddicky SF**, "The M.S.M.E Graduate Student Experience", guest lecture to Mechanical Engineering students in ME 457 Mechatronic System Design course (Travis D. Fields, instructor), University of Missouri-Kansas City, Kansas City, MO, February 24, 2015
8. Hoffman MA, **Siddicky SF**, "3D Motion Analysis of Clinical Movement", guest lecture to the Faculty of Ophthalmology, University of Missouri-Kansas City School of Medicine, Kansas City, MO, December 03, 2014

Pedagogical Training

1. "Not So Neutral: AI's Hidden Bias in Biomechanics," World Congress of Biomechanics, Vancouver, Canada, July 14, 2026.
2. "Pedagogy in Motion: Innovations in Biomechanics Education and Training," World Congress of Biomechanics, Vancouver, Canada, July 14, 2026.
3. "Rigor, Repeatability, & FUN in Pediatric Biomechanics," World Congress of Biomechanics, Vancouver, Canada, July 12, 2026.
4. "The FEBio Software in Education and Training," World Congress of Biomechanics, Vancouver, Canada, July 12, 2026.
5. "Empowerment in Motion: Advancing Biomechanics Through Inclusive Mentorship," World Congress of Biomechanics, Vancouver, Canada, July 11, 2026.
6. "COE Teaching Talks - Part Two", UT College of Education, Austin, TX, April 24, 2026.

7. "COE Teaching Talks - Part One", UT College of Education, Austin, TX, April 17, 2026.
8. "Playful Ways to Incorporate AI Into Your Class," Original Lilly Conference for College Teaching, Oxford, OH, November 21, 2025.
9. "Unlocking SoTL for NTT Faculty: Empowering Teaching and Pedagogical Research," Original Lilly Conference for College Teaching, Oxford, OH, November 21, 2025.
10. "Building Community in the College Classroom: Strategies for Incorporating SEL," Original Lilly Conference for College Teaching, Oxford, OH, November 21, 2025.
11. "Enhancing Higher Ed With Game-Based Learning," Original Lilly Conference for College Teaching, Oxford, OH, November 21, 2025.
12. "Using Constructive Dialogue to Support Small Group Discussion," Original Lilly Conference for College Teaching, Oxford, OH, November 21, 2025.
13. "Facilitating Student Reflection Through Mentoring: A Train-the-Trainer Model," Original Lilly Conference for College Teaching, Oxford, OH, November 20, 2025.
14. "Science Meets Story: Using Storytelling and Character Design in STEM Classrooms," Original Lilly Conference for College Teaching, Oxford, OH, November 20, 2025.
15. "Engage, Empower, Transform: Building a Classroom Where Every Student Can Succeed," Original Lilly Conference for College Teaching, Oxford, OH, November 20, 2025.
16. "Empowering Educators: Harnessing AI to Transform Your Pedagogy," American Society of Biomechanics Annual Conference, Pittsburgh, PA, August 13, 2025.
17. Resources and Insights for Starting Educators (RISE) Program, UT Center for Teaching and Learning, August 2024.
18. Boise State Uniting for Inclusion and Leadership in Diversity (BUILD) Program, December 2021.
19. Teaching during COVID-19: Tips for translating your course to hybrid online learning, American Society of Biomechanics Annual Conference (virtual), Atlanta, GA, August 4, 2020.
20. Peer Instruction Faculty Workshop - Flipped Classroom, University of Arkansas for Medical Sciences, Little Rock, AR, October 17, 2019.

Career Development

1. UT Pathways: A University Professional-Track Faculty Conference, Spring 2026.
2. UT System Professional-Track Faculty Virtual Conference, Spring 2026.
3. UT Professional Track Faculty Peer Networking Circle: Formalizing Informal Peer Support, Spring 2026.
4. UT Professional Track Faculty Peer Networking Circle: Beyond the Classroom: Teaching in Non-Traditional Learning Spaces, Fall 2025.
5. UT Pathways: A University Professional-Track Faculty Conference, Spring 2025.
6. UT Professional Track Faculty Peer Networking Circle: Doing Research as Professional Track Faculty, Spring 2025.
7. UT Professional Track Faculty Peer Networking Circle: Professional Well-Being, Spring 2024.

Workshops Attended

1. "Hip Biomechanics Across the Lifespan: From Infancy to Adulthood," World Congress of Biomechanics, Vancouver, Canada, July 15, 2026.
2. "Biomechanics in Practice: Clinical Translation, Sport Safety, and Society," World Congress of Biomechanics, Vancouver, Canada, July 14, 2026.
3. "Women's Health Biomechanics: The Engineering Perspective," World Congress of Biomechanics, Vancouver, Canada, July 13, 2026.
4. "Revisiting Priorities in Locomotion Research for Clinical Impact," World Congress of Biomechanics, Vancouver, Canada, July 12, 2026.
5. "Bringing Biomechanics to the People: Field-Based Measurement Across Contexts, Communities, and Populations," World Congress of Biomechanics, Vancouver, Canada, July 12, 2026.
6. "Every Summer Needs a Plan", UT Faculty Affairs, Austin, TX, April 29, 2026.

7. "Distilling dynamics of human movement from experimental data," American Society of Biomechanics Annual Conference, Pittsburgh, PA, August 13, 2025.
8. "Enabling large-scale biomechanics studies and data sharing using OpenCap and AddBiomechanics," American Society of Biomechanics Annual Conference, Knoxville, TN, August 8, 2023.
9. "How to Be a Culturally-Competent Mentor, hosted by the Black Biomechanists Association," American Society of Biomechanics Annual Conference (virtual), Atlanta, GA, August 10, 2021.
10. "Entropy," Nonlinear Analysis Core Virtual Webinar Series, Center for Research in Human Movement Variability, University of Nebraska Omaha, Omaha, NE, October 22, 2020.
11. "Aging and Innovation: Discovering Opportunity", Consortium for Aging in Community & Regnier Institute for Entrepreneurship and Innovation, University of Missouri-Kansas City, Kansas City, MO, October 17-18, 2014.

Service

Leadership

1. ASTM Committee F15 on Consumer Products, (2025-present)
   Subcommittee F15.12 on Firmness and Breathability of Juvenile Products.
   Subcommittee F15.21 on Infant Carriers, Bouncers and Baby Swings.
2. Social, Behavioral, and Educational Research Institutional Review Board (SBER IRB) Committee - The University of Texas at Austin, Member (2025-present)
3. Undergraduate Advisory Council (UAC) - The University of Texas at Austin Department of Kinesiology and Health Education, Member (2025-present)
4. KHE Faculty and Staff Awards Committee - The University of Texas at Austin Department of Kinesiology and Health Education, Staff Awards Sub-Committee Chair (2025-26)
5. Leadership Committee - American Society of Biomechanics (ASB) Early Career Faculty Affinity Group, Member (2023-26)
6. Community Building Committee - The University of Texas at Austin Department of Kinesiology and Health Education, Member (2024-25, 2022-23)
7. University Advisor - Bangladeshi Students Association at the University of Texas (2023-25)
8. Membership Council - Gait and Clinical Motion Analysis Society (GCMAS), Member (2023-24)
9. Non Tenure-Track Merit (Academic) Review Committee - The University of Texas at Austin Department of Kinesiology and Health Education, Member (2023-24)

Journal Review

Scientific Reports, Journal of Biomechanics, Clinical Biomechanics, Gait & Posture, Medicine & Science in Sports & Exercise, Frontiers in Pediatrics, Frontiers in Public Health, Perceptual and Motor Skills, Journal of Sport Rehabilitation, Applied Ergonomics, WORK: A Journal of Prevention, Assessment & Rehabilitation.

Conference Abstract Review

1. Central States American College of Sports Medicine (2024-present)
2. Canadian Society of Biomechanics (2024-present)
3. Orthopaedic Research Society (2022-present)
4. North American Congress on Biomechanics (2021-present)
5. American Society of Biomechanics (2020-present)
6. Gait and Clinical Movement Analysis Society (2018-present)
7. American Medical Informatics Association (2017-2021)

Grant Review

1. Central States American College of Sports Medicine Student Research Grants (2025)
2. International Society of Biomechanics Annual Congress Student/Postdoc Travel Grants (2025)
3. Students Engaged in Artistic and Academic Research (SEARCH), University of Missouri (2015)

Conference Moderation

1. South Central American Society of Biomechanics - Student Posters Judge, Fort Worth, TX, April 2024.
2. South Central American Society of Biomechanics - Student Posters Judge, Fort Worth, TX, March 2023.
3. Orthopaedic Research Society - Bone and Hip Podium Posters, Phoenix, AZ, February 2020.
4. South Central American Society of Biomechanics - Student Podiums, Plano, TX, April 2019.
5. American Society of Biomechanics - Running AMA on Reddit, Boulder, CO, August 2017.

Conference Mentoring

1. American Society of Biomechanics Annual Meeting Mentorship Program, August 2020 - 23.
2. South Central American Society of Biomechanics Annual Meeting Mentor Match, March 2023.

Workshops Facilitated

1. **Siddicky SF**, "Career Talk Roundtable: Biomechanics," South Central American Society of Biomechanics, Fort Worth, TX, April 2024.
2. **Siddicky SF**, Komisar V, "Preparing for a postdoctoral fellowship," 16th Annual Northwest Biomechanics Symposium (virtual roundtable), Salem & Corvallis, OR, July 2021.
3. Olitsky SE, **Siddicky SF**, Suh D,Sprunger DT, "Musculoskeletal symptoms among ophthalmologists and how to prevent them," American Academy of Pediatric Ophthalmology and Strabismus, 45th & 44th Annual Meetings, San Diego, CA, March 2019 & Washington, DC, March 2018.
4. **Siddicky SF**, Davis-Kankanamge C, Vilchez Lagos G, "Writing Proposals to Get Grants to Support Graduate Research", panel workshop for Bioinformatics Students in MEDB 5540 Multidisciplinary Graduate Seminar, School of Medicine, University of Missouri-Kansas City, Kansas City, MO, October, 2016.

Media Outreach (Web links)

1. Interviewed for my ophthalmology ergonomics work in the American Academy of Ophthalmology podcast 'Experts InSight' - Ergonomics in the Clinic and Operating Room, December, 2023.
2. Interviewed for a portion of my postdoctoral work in the article "Narrow-base baby carrier yielded lower alpha angles, femoral coverage vs Pavlik harness" on OrthopedicsToday Magazine, Published: February, 2022.
3. National media coverage of an infant inclined sleeper project that I worked on as a part of Dr. Erin Mannen's research team, funded by the United States Consumer Product Safety Commission, (Washington Post, CBS, ABC, Consumer Reports), October 2019.
4. Interviewed for a portion of my dissertation work in the article "Ophthalmic Ergonomics: Continuing Challenges and New Insights" on EyeNet Magazine, Published: April, 2018.
5. Coverage of my workshop at the American Academy of Pediatric Ophthalmology and Strabismus Annual Meeting in the article "Awareness of and advances in ergonomics needed to prevent musculoskeletal problems" on Ocular Surgery News Magazine, Published: March, 2018.
6. Demonstrated motion capture setup on a surgical error detection project, and produced media clip shown as part of a news report on KSHB-TV Channel 41, Air date: September 7, 2017.
7. Interviewed for a segment on my Master of Science motion analysis research on the PBS TV Show SciTech Now, Air date: April 11, 2016.

Community Outreach

The University of Texas at Austin

1. College of Education Spring Commencement - Volunteer (2024, 2025, 2026)
2. UT Summer Discovery Neuroscience Class Lab Visit - Host (2022 - 2025)

Austin Parks Foundation

1. Austin City Limits (ACL) Music Festival - Volunteer (2023, 2024, 2025)

University of Arkansas for Medical Sciences

2. Mount St. Mary's Girls' High School Class Lab Visit - Host (2019)
3. Museum of Discovery Girls in STEM Summer Camp - Field Trip Host (2019)
4. Harding University Biomedical Engineering Students Lab Visit - Host (2019)

University of Missouri-Kansas City

5. High Achieving High School Student Outreach Lab Visit - Host (2017)
6. Partnership for Regional Education Preparation (PREP-KC) Students Lab Visit - Host (2014)
7. Center High School Summer Program Lab - Field Trip Host (2014)
8. Rockhurst University Physics of Medicine Students Lab Visit - Host (2014)

Mentorship

GRADUATE COMMITTEE MEMBERSHIP

The University of Texas at Austin

1. Sonu Maharjan, M.S. Program in Kinesiology (Biomechanics & NeuroRehabilitation), "Comparison of Neuromechanical Demands Between Floor-Rise Techniques", Summer 2026. **(served on Master's thesis committee)**.
2. Zachary Joseph Zegub, M.S. Program in Kinesiology (Movement & Cognitive Rehabilitation Science), "Lower Limb Joint Mechanical Work Modulation During Split-Belt Treadmill Walking", Spring 2026. **(served on Master's thesis committee)**.
3. Nafiz Ishtiaque Ahmed, Ph.D. Program in Kinesiology (Movement & Cognitive Rehabilitation Science), "Understanding Rapid Motor Memory Consolidation and Developing Mechanistically Viable Strategy for Personalized Neuromuscular Electrical Stimulation Protocols", Summer 2025. **(served on Ph.D. comprehensive examination committee)**.
4. Xinyu Li, Ph.D. Program in Kinesiology (Movement & Cognitive Rehabilitation Science), "The effects of neuromuscular electrical stimulation (NMES) on the neuromuscular control pattern across glenohumeral muscles in individuals with rotator cuff disease", Summer 2025. **(served on Ph.D. comprehensive examination committee)**.
5. Brooke Measeles, M.S. Program in Kinesiology (Movement & Cognitive Rehabilitation Science), "Older Adults Produce Joint Moments Less Economically Than Young Adults", Summer 2025. **(served on Master's thesis committee)**.
6. Wenxi Zhang, M.S. Program in Kinesiology (Movement & Cognitive Rehabilitation Science), "Predictors of Treatment Gains in Clinical Gait and Balance Outcomes After Treadmill Oscillation Walking Training in Stroke", Spring 2025. **(served on Master's thesis committee)**.
7. Donald Prible, Ph.D. Program in Kinesiology (Movement & Cognitive Rehabilitation Science), "Event Based Speed Variation to Evoke Targeted Gait Adaptations", Summer 2024. **(served on Ph.D. comprehensive examination committee)**.
8. Jacob Smith, M.S. Program in Kinesiology (Movement & Cognitive Rehabilitation Science), "Wearable Visual Biofeedback of Vertical Ground Reaction Force Enables More Symmetrical Force Production During Deadlifting and Squatting", Spring 2024. **(served on Master's thesis committee)**.
9. Shun Nakamura, M.S. Program in Kinesiology (Movement & Cognitive Rehabilitation Science), "Biomechanical Determinants of Lateral Step Initiation Time Following Ground Support Drop Perturbation in Older Adults", Spring 2024. **(served as Master's report reader)**.
10. Talieh Jannesar, M.S. Program in Kinesiology (Movement & Cognitive Rehabilitation Science), "Locomotor Recovery following Gait Training with Treadmill Lateral Oscillation: A Case Study in an Individual with Chronic Stroke", Spring 2024. **(served as Master's report reader)**.
11. Chenyang Li, M.Ed. Program in Kinesiology (Movement & Cognitive Rehabilitation Science), "Biomechanical Assessment of Single-Leg Drop Vertical Jump Landings: A Comparative Analysis of First and Second Landings", Summer 2023. **(served as Master's report reader)**.
12. Kainat Shahid, M.Ed. Program in Kinesiology (Movement & Cognitive Rehabilitation Science), "Temporal and spatial muscle synergy features and its neural origins during sit-to-stand and stand-to-sit tasks", Spring 2023. **(served as Master's report reader)**.

13. Mohsen Alighanbari, Ph.D. Program in Kinesiology (Movement & Cognitive Rehabilitation Science), "Effect of aging on neuromuscular and biomechanical factors during single- and multi-joint movement in the hand and forearm", Spring 2023. **(served on Ph.D. comprehensive examination committee)**.
14. Forouzan Foroughi, Ph.D. Program in Kinesiology (Movement & Cognitive Rehabilitation Science), "Effect of biofeedback gait training on functional gait and weight bearing charateristics in older adults", Fall 2022. **(served on Ph.D. comprehensive examination committee)**.
15. Keng-Hung Shen, Ph.D. Program in Kinesiology (Movement & Cognitive Rehabilitation Science), "Investigating Control of Limb Loading with a Perturbation Approach", Summer 2022. **(served on Ph.D. comprehensive examination committee)**.
16. Donald Prible, Ph.D. Program in Kinesiology (Movement & Cognitive Rehabilitation Science), "Effect of a Phase-Based Speed Modulation treadmill training system on gait speed in older adults", Summer 2022. **(served on Ph.D. comprehensive examination committee)**.

Boise State University

1. Wyatt Davis, M.S Program in Mechanical Engineering, "Biofidelic Considerations for Improving Standardized Airflow and Firmness Testing for Infant Sleep Products", Spring 2022. **(served on M.S. thesis committee)**.

Graduate Students

The University of Texas at Austin

1. Maggie Truelove, M.Ed. Program in Kinesiology (Biomechanics & NeuroRehabilitation), Fall 2026 to Spring 2028.
2. Meghan McCarthy, M.Ed. Program in Kinesiology (Biomechanics & NeuroRehabilitation), Fall 2025 to Spring 2027.
3. Zachary Joseph Zegub, M.S. Program in Kinesiology (Movement & Cognitive Rehabilitation Science), Fall 2024 to Spring 2026.
4. Wenxi Zhang, M.S. Program in Kinesiology (Movement & Cognitive Rehabilitation Science), Fall 2023 to Spring 2025.
5. Jacob Smith, M.S. Program in Kinesiology (Movement & Cognitive Rehabilitation Science), Fall 2023 to Spring 2024.

American Society of Biomechanics Conference Mentorship Program

1. Christina Bourantas, Ph.D. Program in Movement Science, Washington University in St. Louis, ASB Annual Meeting, Fall 2023.
2. Qingyi Lou, M.S. Program in Bioengineering, Georgia Institute of Technology, ASB Annual Meeting, Fall 2023.
3. Karthick Natesan, Ph.D. Program in Rehabilitation Science, Texas Tech University Health Sciences Center, South Central ASB Meeting, Spring 2023.
4. Lauren Nicole Long, M.S. Program in Biomedical Engineering, University of Michigan, ASB Annual Meeting, Fall 2021.
5. Jaywoo Kim, Ph.D. Program in Kinesiology and Mechanical Engineering, University of Michigan, ASB Annual Meeting, Fall 2020.

Boise State University

1. Abby Brittain, Ph.D. Program in Biomedical Engineering, Parent ergonomics project, Fall 2021 to Spring 2023.
2. Danielle Siegel, Ph.D. Program in Biomedical Engineering, Infant rolling project, Summer 2020 to Spring 2023.
3. Wyatt Davis, M.S Program in Mechanical Engineering, Infant sleep products testing project, Fall 2020 to Spring 2022.

University of Arkansas for Medical Sciences

1. John T Sherrill, Ph.D Program in Interdisciplinary Biomedical Sciences, Validation of a Spine Testing Machine Study, Fall 2018 to Summer 2020.

2. Pearl Doiphode, M.S. Program in Exercise Science at University of Central Arkansas, Internship on Sports Biomechanics Research, Summer 2019.

University of Missouri-Kansas City

1. Ricky Abnos, M.S. Program in Mechanical Engineering, Biomechanical Postural Evaluation of Dental Hygienists Study and Postural Ergonomics of Ophthalmologists Study, Spring 2016 to Spring 2017.

Medical Students

Idaho College of Osteopathic Medicine

1. Abby Prow, M1, Infant Rolling Study, Spring 2021 to Spring 2022.
2. Olivia Scholes, M1, Infant Rolling Study, Spring 2021 to Spring 2022.

University of Arkansas for Medical Sciences

1. Jason Eckels, M2, Infant Hip Ultrasound Study, Summer 2019 to Summer 2020.
2. Samantha Mohler, M1, Infant Hip Modeling Study, Spring 2019 to Summer 2020.
3. Sidhant S. Dalal, M1, Infant Hip Ultrasound Study, Spring 2019 to Summer 2020.

University of Missouri-Kansas City

1. Subhjit Kaur Sekhon, M2, Postural Ergonomics of Ophthalmologists Study, Summer 2015.
2. Srinivasa Potla, M3, Biomechanical Analysis of Endotracheal Intubation Skill Study and Postural Ergonomics of Ophthalmologists Study, Summer 2015.

Undergraduate Research Students

The University of Texas at Austin

1. Mary Morgan Brumley, Kinesiology (Exercise Science), Summer 2025.

Boise State University

1. Holly Olvera, Mechanical and Biomedical Engineering, Summer 2021 to Summer 2023.
2. Sarah Goldrod, Mechanical and Biomedical Engineering, Fall 2020 to Spring 2022.

University of Arkansas for Medical Sciences

1. Will Hefley, Intern, Biology, University of Tulsa, Fall 2019 to Summer 2020.
2. Samuel Hockett, Intern, Biomedical Engineering, Harding University, Summer 2019.
3. Emma Casper, Intern, Biomedical Engineering, Harding University, Spring 2019.
4. Anna Mccoy, Intern, Biomedical Engineering, Harding University, Spring 2019.
5. Lauren Buchele, Honors Senior Thesis, Biomedical Engineering, University of Arkansas, Summer 2018 to Spring 2019

University of Missouri-Kansas City

1. Jacqueline Sampson, Mechanical Engineering, Fall 2017 to Spring 2018.
2. Mary Okafor, Mechanical Engineering, Fall 2017 to Spring 2018.
3. Jessi Lee Peters, Intern, Physics, Rockhurst University, Fall 2017 to Spring 2018.
4. Quang Nguyen, Intern, Physics, Rockhurst University, Fall 2017 to Spring 2018.
5. Asangi Nimesha Senanayke, Mechanical Engineering, Spring 2016 to Spring 2017.
6. Maureen Muller, Mechanical Engineering, Spring 2016 to Spring 2017.

Professional

Honors

2026 - UT Kinesiology and Health Education Undergraduate Teaching Award
2025 - Nominated for the UT Piper Award
2025 - Nominated for the UT Kinesiology and Health Education Undergraduate Teaching Award
2024 - Bangladeshi Student Association at UT Austin (BDSA) Award of Appreciation
2023 - Shortlisted for the Orthopaedic Research Society William H. Harris Award
2020 - Shortlisted for the Orthopaedic Research Society William H. Harris Award
2018 - Finalist for the American Society of Biomechanics Doctoral Competition (Top 36/250)
2018 - School of Graduate Studies Travel Grant, UMKC
2018 - Student Activities Fee Commission Travel Grant, UMKC
2017 - Outstanding Doctoral Student in Mechanical Engineering Award, UMKC (Also in 2016)
2017 - Graduate Teaching Assistant Scholarship, UMKC (Every semester since Spring 2014)
2016 - First Prize (Singing) at UMKC Culture Night Talent Show
2015 - Finalist for the UMKC Distinguished Master's Thesis Award
2015 - Outstanding Master's Student in Mechanical Engineering Award, UMKC
2014 - Honor Society of Phi Kappa Phi (Top 10% of graduate class)
2013 - Vice-President, Bangladesh Student Association at Georgia Tech
2013 - Dean's List, Georgia Institute of Technology (Since 2011)
2013 - Georgia Tech Idol (winner of campus-wide singing competition)

Skills

Programming:	MATLAB, LabVIEW, HTML/CSS, LaTeX
Modeling:	AutoCAD, Solidworks, PTC Creo, Inventor, Eagle PCB, MSC Adams
Multiphysics:	Abaqus, ANSYS Fluent, COMSOL
Statistics:	SPSS, MINITAB
Biomechanics:	Vicon, Optitrack, MotionAnalysis, Qualisys, Delsys, Novel, Visual3D, OpenSim
Learning (LMS):	Canvas, Blackboard
Audio/Video:	Panopto, Camtasia, Logic Pro, Final Cut Pro

Society Memberships

American Society of Biomechanics (ASB)
Orthopedic Research Society (ORS)
Gait and Clinical Movement Analysis Society (GCMAS)
Canadian Society of Biomechanics (CSB)
International Motor Development Research Consortium (I-MDRC)
ASTM International

Organization Memberships

Black Biomechanists Association, 2022-present.
Perinatal Health Research Group (A multi-institute group of scientists working to improve the health and wellness of the perinatal community through interdisciplinary research), 2021-present.
Kansas City Area Interdisciplinary Motion Analysis Group (A consortium of educators, researchers and medical professionals in Motion Analysis), Co-founding member, 2015-2018.

Registration

Engineer in Training (E.I.T), Missouri (#2014034382)