# Matthew M. Hanks, Ph.D., ATC

Department of Kinesiology and Community Health

College of Applied Health Sciences

University of Illinois Urbana-Champaign

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#### **DISCIPLINE SPECIALIZATION**

Determining the role of physical activity on shoulder pain and pathology in manual wheelchair users across the lifespan by examining the underlying mechanisms of musculoskeletal adaptation and movement biomechanics.

#### **EDUCATION & TRAINING**

2018-2022 University of Wisconsin-Milwaukee, Milwaukee, WI
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Postdoctoral Research Fellow Mentor: Brooke A. Slavens, PhD

Quantification of shoulder biomechanics during wheelchair mobility and adapted sports in children and

adults with spinal cord injuries.

2015-2018 Auburn University, Auburn, AL

Doctor of Philosophy, Kinesiology

Mentor: Gretchen D. Oliver, PhD, FACSM, ATC

2014-2015 Auburn University, Auburn, AL

Master of Education, Exercise Science (Biomechanics)

2010-2014 University of Michigan, Ann Arbor, MI

Bachelor of Science, Athletic Training

### POSITIONS & PROFESSIONAL EXPERIENCES

2022-present Assistant Professor (tenure-track)

Department of Kinesiology and Community Health University of Illinois Urbana-Champaign, Urbana, IL

2018-2022 Postdoctoral Research Fellow

Movement Analysis for Biomedical Innovation and Technology (Mobility) Laboratory

Department of Rehabilitation Sciences & Technology University of Wisconsin-Milwaukee, Milwaukee, WI

2017-2019 Co-Founder/Consultant

ESCAPE Therapy™, LLC, Auburn, AL

2015-2018 Graduate Research Assistant

Sports Medicine and Movement Laboratory

School of Kinesiology

Auburn University, Auburn, AL

2014-2018 Graduate Assistant Athletic Trainer

Auburn University Wheelchair Basketball School of Kinesiology, Office of Accessibility

Auburn University, Auburn, AL

#### **FELLOWSHIPS**

2019-2022 Postdoctoral Fellowship

Department of Rehabilitation Sciences & Technology (formerly Occupational Science & Technology)

University of Wisconsin-Milwaukee, Milwaukee, WI

2018-2019 Postdoctoral Fellowship

Department of Occupational Science & Technology

Department of Biomedical Engineering

University of Wisconsin-Milwaukee, Milwaukee, WI

2014-2018 Predoctoral Fellowship

Auburn Graduate School School of Kinesiology

Auburn University, Auburn, AL

### **HONORS & AWARDS**

2023	University of Illinois ACES Research Academy Grantsmanship Workshop, Invited Participant
2022	List of Teachers Ranked as Excellent by Their Students, University of Illinois (Fall 2022)
2022	American Spinal Injury Association Vogel Award, Recipient
2021	United States Bone & Joint Initiative Young Investigator Initiative Grant Mentoring and Career
	Development Program, Invited Participant
2020	Clinical and Translational Science Institute of Southeast Wisconsin Manuscript Writing Intensive
	Workshop, Invited Participant
2018	Annual Tiger Cage Competition - 1 <sup>st</sup> Place: ESCAPE Therapy <sup>TM</sup> , LLC, Raymond J. Harbert College of
	Business, Auburn University
2015-2018	Auburn University Graduate School, College of Education, and School of Kinesiology Travel Awards
2015-2018	Auburn University College of Education Honor Roll Annual Scholarship

### PEER-REVIEWED PUBLICATIONS

- 1. **Hanks MM,** Schnorenberg AJ, Lee KK, Slavens BA. Three-Dimensional Biomechanics of the Trunk and Upper Extremity During Overhead Throwing in Wheelchair Lacrosse Athletes with Spinal Cord Injury. *American Journal of Physical Medicine and Rehabilitation*. 2023;102(4):365-371. PubMed PMID: 35152250.
- 2. **Hanks MM**, Leonardis JM, Schnorenberg AJ, Krzak JJ, Graf A, Vogel LC, Harris GF, Slavens BA. The Influence of Sex on Upper Extremity Joint Dynamics and Pain in Pediatric Manual Wheelchair Users with Spinal Cord Injury. *Topics in Spinal Cord Injury Rehabilitation*. 2021; 27(3): 26-37. PubMed Central PMCID: PMC8370704.

- 3. **Hanks MM**, Schnorenberg AJ, Lee KK, Slavens BA. Biomechanical Evaluation of Overhead Throwing in Able-Bodied and Wheelchair Lacrosse Players. *Biomedical Sciences Instrumentation*. 2019; 55(2): 343-348.
- 4. **Hanks MM** and Oliver GD. Muscle Activation Patterns in Wheelchair Basketball Athletes with and without Physical Disability. *International Journal of Physiatry*. 2018; 4:013.
- 5. **Hanks MM**, Brewer LE, Gilmer GG, Oliver GD. The Influence of Self-Selected Protective Equipment on Kinematics in Youth Lacrosse Players. *Sports Medicine and Rehabilitation Journal*. 2018; 3(2): 1031.
- 6. **Hanks MM**, Sefton JM, Oliver, GD. Neck Kinematics and Electromyography While wearing Head Supported Mass During Running. *Aerospace Medicine and Human Performance*. 2018; 89(1): 9-13.
- 7. Gascon SS, **Hanks MM**, Gilmer GG, Oliver GD. Biomechanical Influences of a Postural Compression Garment on Scapular Positioning. *The International Journal of Sports Physical Therapy*. 2018; 13(4): 700-706

### MANUSCRIPTS IN PREPARATION

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#### CONFERENCE PROCEEDINGS & ABSTRACTS

## **Podium Presentations**

- 1. Cordes CMA, **Hanks MM**, Mukherjee S, Schnorenberg AJ, Slavens BA. Influence of Spinal Cord Injury Level on Variability of Wheelchair Handrim Kinetics. *North American Congress of Biomechanics*. Ottawa, Ontario, Canada. August 24, 2022.
- 2. Slavens BA, **Hanks MM**, Frank HR, Schnorenberg AJ, Zebracki K, Mukherjee, S. The Importance of Elbow Angle in Wheelchair Setup for Pediatric Manual Wheelchair Users. *9*<sup>th</sup> World Congress of Biomechanics. Taipei, Taiwan. July 10, 2022.
- 3. Schwartz SR, Schnorenberg AJ, Frank HR, **Hanks MM**, Mukherjee S, Slavens BA. Handrim Biomechanics and Wheelchair Fit Measures in Pediatric and Emerging Adult Manual Wheelchair Users. *Summer Biomechanics*, *Bioengineering and Biotransport Conference*. Eastern Shore, MD. June 20, 2022.
- 4. Schwartz SR, Schnorenberg AJ, **Hanks MM**, Mukherjee S, Slavens BA. Evaluation of Upper Limb Symmetry in Manual Wheelchair Users with Pediatric-Onset SCI. *American Spinal Injury Association Annual Scientific Meeting*. New Orleans, LA. May 18, 2022.
- Hanks MM, Schwartz SR, Schnorenberg AJ, Mukherjee S, Vogel LC, Slavens BA. Handrim Biomechanics of Manual Wheelchair Users with Pediatric-Onset Spinal Cord Injury. *Steel Assembly Conference*. Orlando, FL. December 8, 2021.
- 6. **Hanks MM**, Frank HR, Schnorenberg AJ, Mukherjee S, Zebracki Z, Vogel LC, Slavens BA. Manual Wheelchair Setup and Pain in Individuals with Pediatric-Onset Spinal Cord Injury. *Steel Assembly Conference*. Orlando, FL. December 8, 2021.
- 7. **Hanks MM**, Schnorenberg AJ, Lee KK, Slavens BA. Upper Extremity Biomechanical Differences between Wheelchair Lacrosse Athletes with Spinal Cord Injury and Able-Bodied Lacrosse Athletes during Overhead Throwing. *Rehabilitation Engineering and Assistive Technology Society of North America*. Washington, DC (virtual). July 8, 2021.
- 8. **Hanks MM**, Leonardis JM, Schnorenberg AJ, Lee KK, Slavens BA. Quantification of Trunk and Upper Extremity Kinematic Differences between Able-Bodied Lacrosse Players and Wheelchair Lacrosse Players with Spinal Cord

- Injury during Overhead Throwing. *American Spinal Injury Association Annual Scientific Meeting*. St. Louis, MO. July 8, 2021.
- 9. Leonardis JM, **Hanks MM**, Schnorenberg AJ, Vogel LC, Slavens BA. Influence of Sex on Joint Dynamics during Wheelchair Propulsion in Children with Spinal Cord Injury. *Proceedings of the 11<sup>th</sup> Annual Scientific Meeting of the American Spinal Injury Association*. St. Louis, MO. July 8, 2021.
- 10. **Hanks MM**, Schnorenberg AJ, Lee KK, Slavens BA. Upper Extremity Biomechanical Characterization of Ablebodied and Wheelchair Lacrosse Players Performing the Overhead Throw. *Medical College of Wisconsin Research Grand Rounds*. Milwaukee, WI. October 18, 2019.
- 11. **Hanks MM**, Schnorenberg AJ, Lee KK, Slavens BA. Biomechanical Evaluation of Overhead Throwing in Able-Bodied and Wheelchair Lacrosse Players. *Rocky Mountain Bioengineering Symposium/IEEE Great Lakes Biomedical Conference*. Milwaukee, WI. April 13, 2019.
- 12. **Hanks MM**, Schnorenberg AJ, Lee KK, Slavens BA. Biomechanical Evaluation of Overhead Throwing in Able-Bodied and Wheelchair Lacrosse Players. *Occupational Science & Technology Lectureship*. Milwaukee, WI. December 14, 2018.
- 13. **Hanks MM**, Sefton JM, Oliver GD. Neck Kinematics and Electromyography while Wearing Head Supported Mass during Running. *Tactical Athlete Human Factors Summit*. Auburn, AL. July 28, 2017.

#### Poster Presentations

- 1. **Hanks MM,** Schwartz SR, Schnorenberg AJ, Reiners KA, Mukherjee S, Slavens BA. Methods for Assessing Shoulder Dynamics and Function in Pediatric Wheelchair Athletes. *American Society of Biomechanics*. Atlanta, GA. (virtual). August 10, 2021.
- 2. Slavens BA, **Hanks MM**, Schnorenberg AJ, Tarima S, Muqeet V, Vogel LC. Variability of Shoulder Kinematics Across the Lifespan in Manual Wheelchair Users with Spinal Cord Injury. *National Institutes of Health Rehabilitation Research 2020: Envisioning a Functional Future*. Bethesda, MD (virtual). October 15-16, 2020.
- 3. **Hanks MM**, Schnorenberg AJ, Lee KK, Slavens BA. Biomechanical Comparison of Trunk and Upper Extremity Kinematics between Able-Bodied Lacrosse Players and Wheelchair Lacrosse Players with Spinal Cord Injury. *National Institutes of Health Rehabilitation Research 2020: Envisioning a Functional Future*. Bethesda, MD (virtual). October 15-16, 2020.
- 4. **Hanks MM**, Schnorenberg AJ, Tarima S, Muqeet V, Vogel LC, Slavens BA. Glenohumeral Joint Motion Variability during Wheelchair Propulsion in Children and Adults with Spinal Cord Injury. *American Society of Biomechanics*. Atlanta, GA (virtual). August 5, 2020.
- 5. **Hanks MM**, Schnorenberg AJ, Lee KK, Slavens BA. Upper Extremity Biomechanical Characterization of Ablebodied and Wheelchair Lacrosse Players Performing the Overhead Throw. *International Society of Biomechanics*. Calgary, Alberta. Canada. August 2, 2019.
- 6. **Hanks MM**, Schnorenberg AJ, Lee KK, Slavens BA. Biomechanical Characterization of Able-Bodied and Wheelchair Lacrosse Players Performing the Overhead Throw. *University of Wisconsin-Milwaukee Health Research Symposium*. Milwaukee, WI. May 3, 2019.
- 7. **Hanks MM**, Brewer LE, Gilmer GG, Washington, JK, Gascon, SS, Barfield JW, Friesen K, Oliver GD, FACSM. The Influence of Self-Selected Protective Equipment on Kinematics in Youth Lacrosse Players. *Southeast American College of Sports Medicine*. Chattanooga, TN. February 17, 2018.
- 8. Williams P, Washington JK, **Hanks MM**, Barfield JW, Gilmer GG, Gascon SS, Friesen K, Oliver GD, FACSM. Examination of Proximal and Distal Muscle Activation: An EMG Study. *Southeast American College of Sports Medicine*. Chattanooga, TN. February 17, 2018.

- 9. Henning LE, Washington JK, **Hanks MM**, Gilmer GG, Brambeck AL, Gascon SS, Barfield JW, Holt TE, Oliver GD, FACSM. Single-Leg Squat Trunk Kinematics in Individuals with and without Scapular Dyskinesis. *Southeast American College of Sports Medicine*. Greenville, SC. February 18, 2017.
- 10. Henning LE, **Hanks MM**, Oliver GD, FACSM. Relationship Between Scapular Dyskinesis and Single Leg Squat Kinematics: A Pilot Study. *Southeastern Chapter of the American College of Sports Medicine*. Greenville, SC. February 19, 2016.

### Thematic Poster Presentations

- 1. Washington JK, **Hanks MM**, Gascon SS, Barfield JW, Williams P, Friesen K, Gilmer GG, Brittain A, and Oliver GD, FACSM. Correlation of Lumbopelvic-Hip Complex Kinematics to Hand Angular Velocity in Softball Hitting: A Pilot Study. *Southeast American College of Sports Medicine*. Chattanooga, TN. February 16, 2018.
- 2. Barfield JW, Washington JK, **Hanks MM**, Gascon SS, Gilmer GG, Brittain A, Williams P, Friesen K, Oliver GD, FACSM. Baseball Pitcher's Glove Arm Influence on Elbow and Shoulder Kinetics. *Southeast American College of Sports Medicine*. Chattanooga, TN. February 16, 2018.
- 3. Gascon SS, Gilmer SS, **Hanks MM**, Oliver GD, FACSM. Biomechanical Influences of a Postural Compression Garment on Scapular Positioning. *Southeast American College of Sports Medicine*. Chattanooga, TN. February 16, 2018.
- 4. **Hanks MM**, Washington JK, Oliver GD. Muscle Activation Patterns in Wheelchair Basketball Athletes with and without Physical Disability: A Pilot Study. *Southeast American College of Sports Medicine*. Greenville, SC. February 16, 2017.

#### INVITED LECTURES & SYMPOSIA PRESENTATIONS

- 1. Slavens BA, **Hanks MM**, Frank HR, Schnorenberg AJ, Zebracki K, Mukherjee, S. (July 10, 2022). The Importance of Elbow Angle in Wheelchair Setup for Pediatric Manual Wheelchair Users. 9<sup>th</sup> World Congress of Biomechanics. Taipei, Taiwan.
- 2. **Hanks MM**, Schnorenberg AJ, Lee KK, Slavens BA. (October 18, 2019). Upper Extremity Biomechanical Characterization of Able-bodied and Wheelchair Lacrosse Players Performing the Overhead Throw. *Medical College of Wisconsin Research Grand Rounds*. *Milwaukee*, WI.
- 3. **Hanks MM**, Schnorenberg AJ, Lee KK, Slavens BA. (May 3, 2019). Biomechanical Characterization of Able-Bodied and Wheelchair Lacrosse Players Performing the Overhead Throw. *University of Wisconsin-Milwaukee Health Research Symposium. Milwaukee*, WI.
- 4. **Hanks MM**, Schnorenberg AJ, Lee KK, Slavens BA. (December 14, 2018) Biomechanical Evaluation of Overhead Throwing in Able-Bodied and Wheelchair Lacrosse Players. *Occupational Science & Technology Lectureship*. *Milwaukee*, WI.
- 5. **Hanks MM**, Sefton JM, Oliver GD. (July 28, 2017) Neck Kinematics and Electromyography while Wearing Head Supported Mass during Running. *Tactical Athlete Human Factors Summit. Auburn, AL*.

#### **BOOK CHAPTERS**

1. Jones, CA, Shuda, LE, **Hanks, MM**, Harper, MW, & Lee, KK. (in review). Wheelchair Lacrosse. In A. De Luigi (Ed.), Adaptive Sports Medicine - A Clinical Guide (2 ed.). Springer Nature.

#### **MEDIA & INTERVIEWS**

1. SCI Science Perspectives. American Spinal Injury Association 2022 Awardees: Named Awards.

## **GRANTS/FUNDING (ONGOING)**

Title: Collaborations in the Advancement of Research on Disability (CARD)

Co-PIs: Rice, Laura; Kosciulek, John

Role: Co-Investigator

Source: Center for Health, Aging, and Disability, College of Applied Health Sciences, University of Illinois Urbana-

Champaign

Period: 01/01/2023-12/31/2025

Amount: \$150,000

Description: The major goal of this project is to engage in a series of activities that address critical problems associated with disability to achieve an overarching goal of improving health and quality of life: promotion of disability related research and community outreach and engagement through the College of Applied Health Sciences and University of Illinois Urbana-Champaign.

## GRANTS/FUNDING (SUBMITTED/UNDER REVIEW)

Title: Determining the Role of Physical Activity on Shoulder Musculoskeletal Adaptation, Biomechanics, Pain, and Pathology in Pediatric and Young Adult Manual Wheelchair Users

PI: Hanks, Matthew

Source: Center for Health, Aging, and Disability: Pilot Grant, College of Applied Health Sciences, University of Illinois

Urbana-Champaign

Period: 08/15/2023-02/15/2025

Amount: \$30,000

Description: The major goals of this project are to investigate the role of physical activity on shoulder pain and pathology in pediatric and young adult manual wheelchair users by examining the underlying biopsychosocial mechanisms of shoulder musculoskeletal adaptation and biomechanics during critical periods of physical growth and maturation

## **GRANTS/FUNDING (COMPLETED)**

Title: Prediction of Shoulder Injury for Disease Prevention in Children and Adults with Spinal Cord Injury Using Advanced Biomechanical Modeling and Diagnostic Imaging (1R01HD098698-01)

PI: Slavens, Brooke

Role: Postdoctoral Research Fellow

Source: Eunice Kennedy Shriver National Institute of Child Health and Human Development

Period: 07/01/2019-03/31/2023 Amount: \$2,993,720 (direct)

Description: The major goals of this project are to investigate the secondary effects of manual wheelchair use in children and adults with spinal cord injury across the lifespan.

## **GRANTS/FUNDING (PLANNED SUBMISSIONS)**

Title: From Combat to Campus: Investigating Physical Activity, Shoulder Musculoskeletal Health, and Community Participation in Student Service Members/Veterans with Physical Disabilities during Daily Wheelchair Mobility

PI: Hanks

Source: Paralyzed Veterans of America Research Foundation

Period: TBD

Description: The major goal of this project is to investigate the relationships between physical activity, shoulder pain and pathology, and participation in student service members/Veterans with physical disabilities who use manual wheelchairs to navigate their college campuses and communities.

# **GRANTS/FUNDING (REVIEWED BUT NOT FUNDED)**

Title: The Influence of Exercise on Shoulder Biomechanics, Pain, and Pathology in Pediatric and Emerging Adult Manual Wheelchair Users

PI: Hanks

Mentors: Slavens, Brooke; Goodfriend, Karin; Zebracki, Kathy; Strayer, Jonathan

Source: National Institute on Disability, Independent Living, and Rehabilitation Research Switzer Research Fellowships

Description: The major goals of this project are to investigate the relationships among exercise and shoulder

biomechanics, pain, and pathology in pediatric and emerging adult manual wheelchair users.

Title: Biomechanical Factors Associated with Shoulder Pain, Pathology, and Function in Pediatric Wheelchair Athletes and Nonathletes with Spinal Cord Injuries/Diseases

PI: Hanks

Mentors: Slavens, Brooke; Goodfriend, Karin; Zebracki, Kathy; Strayer, Jonathan

Source: National Institute on Disability, Independent Living, and Rehabilitation Research Switzer Research Fellowships Description: The major goals of this project are to investigate the relationships among adaptive sports participation, shoulder biomechanics, pain, pathology, and function in pediatric wheelchair athletes and nonathletes with spinal cord injuries/diseases.

Title: Quantification of Shoulder Biomechanics in Adolescents and Adults with Spinal Cord Injury During Wheelchair

Lacrosse: Insights for Player Safety

PI: Slavens, Brooke Role: Postdoctoral Fellow

Mentor(s): Slavens, Brooke; Strayer, Jonathan; Lee, Kenneth Source: Paralyzed Veterans of America Research Foundation

Description: The major goals of this project are to investigate shoulder joint kinetics during overhead throwing and stick

checking and correlate these kinetic metrics with self-reported pain.

#### **TEACHING**

#### University of Illinois Urbana-Champaign

2023	KINESIOLOGY (KIN) 494 – Exercise and Sport Injury
	Instructor
2023	KINESIOLOGY (KIN) 501 – Kinesiology Research Methods
	Instructor
2022	KINESIOLOGY (KIN) 401 – Measurement & Evaluation in Kinesiology
	Instructor

#### University of Wisconsin-Milwaukee

2022	OCCUPATIONAL THERAPY (OCCTHPY) 593 - Introduction to Biomedical and Rehabilitation
	Instrumentation
	Guest Lecturer: Adaptive Sports and Recreation Technology
2019	THERAPEUTIC RECREATION (THERREC) 202 - Disability: Society and the Person
	Guest Lecturer: Experiences with Stigmas and Stereotypes in Adaptive Sports
2019	OCCUPATIONAL THERAPY (OCCTHPY) 704 - Musculoskeletal Analysis & Occupational Function
	Guest Lecturer: Movement in the Context of Activity – The Head and Torso
2018-2019	BIOMEDICAL ENGINEERING (BME) 305 - Introduction to Engineering Biomechanics
	Co-Instructor

### Auburn University

2018	KINESIOLOGY (KINE) 7660 - Biomechanics of Sport Injury
	Co-Instructor
2018	KINESIOLOGY (KINE) 4880 - Training and Conditioning Programming
	Guest Lecturer: Injury Prevention for the Foot and Ankle, Knee, Low Back, and Shoulder
2017-2018	Via College of Osteopathic Medicine Seminar
	Guest Lecturer: Common Injuries in Wheelchair Basketball
2015-2018	Sports Medicine and Movement Laboratory
	Laboratory Tour Guide: Auburn University President, American College of Sports Medicine, American
	Sports Medicine Institute, ESPN, alumni donors, and prospective graduate and undergraduate students
2017	REHABILITATION & SPECIAL EDUCATION (RSED) 5020 - Psychosocial Aspects of Disability
	Guest Lecturer: Common Injuries in Wheelchair Basketball
2016	KINESIOLOGY (KINE) 8320 - Research Mentorship
	Graduate Student Mentor: Undergraduate capstone project
2016	KINESIOLOGY (KINE) 4690 - Corrective Exercise Specialist Prep
	Guest Lecturer: Common Injuries in Wheelchair Basketball

#### **MENTORSHIP**

# University of Illinois Urbana-Champaign

Jordyn Lopez. MS Kinesiology, 2025 (anticipated)

## *University of Wisconsin-Milwaukee (Postdoctoral)*

Caleb Cordes. PhD Health Sciences, 2024 (anticipated)

Anahita Qashqai. PhD Health Sciences, 2022 Omid Jahanian. PhD Health Sciences, 2019 Hannah Frank. MS Occupational Therapy, 2021

Olivia Wilwert. MS Occupational Therapy, 2020 Paige Aschenbrener. MS Occupational Therapy, 2020

Jared Bonack. MS Athletic Training, 2020

John Poppe. BS Engineering and Applied Science, 2019-2020

Peyton Bendis. BS Education, 2019

Nicole Vigon. BS Biomedical Engineering, 2018-2019 Melissa Stec. BS Biomedical Engineering, 2018-2019

## Auburn University (Graduate)

Kyle Wasserberger. MS Exercise Science (Biomechanics), 2017-2018 Jessica Downs. MS Exercise Science (Biomechanics), 2017-2018

Hunter Alvis. MS Exercise Science (Biomechanics), 2016-2018

Allie Andrews. BS Biomedical Sciences, 2017-2018 Teasie Williams. BS Exercise Science, 2017-2018

Tate Pember. BS Biomedical Science, 2017-2018

Gabrielle Gilmer. BS Chemical Engineering, 2016-2018

Abby Brittain. BS Exercise Science, 2016-2018

Matthew Jones. BS Rehabilitation and Disability Studies, 2015-2017

Meghan Ahern. BA Chemistry, 2014-2017

### PROFESSIONAL SERVICE

## **Clinical Practice**

## **University of Wisconsin-Milwaukee**

2019-2022 Medical Assistant/Volunteer-Big Cheese Wheelchair Lacrosse Classic

# USA Men's Paralympic Wheelchair Basketball Training Camp

2016-2018 Invited, Assistant Athletic Trainer (Lakeshore Foundation, Birmingham, AL; Olympic Training Center, Lake Placid, NY; Spire Institute, Cleveland, OH)

## USA Men's & Women's National Team Handball Residency Program

2014-2018 Interim Athletic Trainer (Auburn University, Auburn, AL)

## Auburn University

2016-2018	Athletic Trainer-Auburn University Wheelchair Basketball Summer Camp
2016-2018	Camp Counselor/Medical Assistant-Abilities Unlimited Summer Camp, iCan Shine, Pediatric Movement
	and Physical Activity Laboratory
2015-2018	Research Assistant-Speed, Agility, and Conditioning Camp, Sport Biomechanics Laboratory
2015-2017	Research Assistant-Softball Summer All Skills Camp, Sports Medicine and Movement Laboratory
2016	Athletic Trainer-Neon Vibe 5K Run

# University of Michigan

2014	Medical Assistant-Annual Army vs. Navy Wheelchair Basketball Game
2013-2014	Medical Assistant-Michigan Sports Camps
2013-2014	Volunteer-Gatorade Sports Camp

### **Journal Peer Review**

2022-present	Journal of Applied Biomechanics
2022-present	PLOS One
2021-present	Disability and Rehabilitation: Assistive Technology
2021-present	Journal of Athletic Training
2020-present	Topics in Spinal Cord Injury Rehabilitation

### PROFESSIONAL MEMBERSHIPS/CERTIFICATIONS

2021-2022	Steel Assembly
2021-2022	Rehabilitation Engineering and Assistive Technology Society of North America
2021-present	American Spinal Injury Association
2018-present	American Society of Biomechanics
2017-2018	National Wheelchair Basketball Association, Certified Regional Functional Classifier
2015-2018	Southeast American College of Sports Medicine
2015-2018	American College of Sports Medicine
2014-2018	Alabama Athletic Trainers' Association
2014-present	National Athletic Trainers' Association Board Certification (#2000017380)
2014-2018	State of Alabama Athletic Training Licensure, (License #1676)
2014-present	American Heart Association Healthcare Provider CPR/AED