

Curriculum Vitae

Woohyoungh Jeon, MS, PhD

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Contact Information

Business Address: Department of Health and Kinesiology
The University of Texas at Tyler
Herrington Patriot Center 2245
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EDUCATION

- | | | |
|-------------------|---|-----------------|
| 08/2015 – 08/2020 | University of Texas at Austin
PhD. in Movement and Cognitive Rehabilitation Science | |
| 08/2013 – 08/2015 | University of Texas at Austin
MS. in Movement and Cognitive Rehabilitation Science | |
| 03/2011 – 02/2012 | National Institute for Lifelong Education
BS. in Life Science | Seoul, S. Korea |
| 03/2003 – 08/2009 | Korea University
BS. in Physical Education | Seoul, S. Korea |

OTHER EDUCATIONAL & PROFESSIONAL EXPERIENCE

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|-------------------|---|-----------------|
| 07/2022 – present | Assistant Professor
University of Texas at Tyler, School of Health Professions
Department of Kinesiology | UT Tyler |
| 07/2020 – 07/2022 | Postdoctoral Fellow
University of Maryland School of Medicine
Department of Physical Therapy and Rehabilitation Science | UMB |
| 08/2013 – 12/2019 | Teaching Assistant | UT Austin |
| 05/2019 – 09/2019 | Research Assistant
Control of Lateral Stability during Unilateral Ground Support
Perturbation in Older Adults and Individuals with Stroke. | UT Austin |
| 09/2004 – 09/2006 | Sergeant and Combat medic, Korean Army
Served as a medic, working as an emergency medical technician.
The final rank was sergeant. | Seoul, S. Korea |

PROFESSIONAL SOCIETY MEMBERSHIP

07/2020 – present General Member, American Society of Biomechanics (ASB)
05/2017 – present General Member, Society for Neuroscience (SfN)
10/2015 – present General Member, American College of Sports Medicine (ACSM)

HONORS & AWARDS

07/2020	University of Maryland Advanced Neuromotor Rehabilitation Research Training (UMANRRT) Program Post-doctoral Fellowship from National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR grant number 90AR5028).	2020 - 2022
11/2019	Graduate School Dissertation Writing Fellowship	2020 Spring and Summer
08/2019	George I. Sanchez Endowed Presidential Fellowship	2019-2020 academic year
08/2019	Mack Brown Endowed Scholarship in Kinesiology	2019-2020 academic year
08/2019	Mary Buice Alderson Scholarship (<u>Teaching excellence</u>)	2019-2020 academic year
08/2018	Mack Brown Endowed Scholarship in Kinesiology	2018-2019 academic year
07/2017	Mack Brown Endowed Scholarship in Kinesiology	2017-2018 academic year
08/2016	Mary Buice Alderson Scholarship (<u>Teaching excellence</u>)	2016-2017 academic year

PEER REVIEWED JOURNALS PUBLICATIONS

Woohyoung Jeon, Ashley Dalby, Xuanliang Neil Dong, Chung-Hyun Goh (2025) Effects of Initial Foot Position on Neuromuscular and Biomechanical Control During the Stand-to-Sit Movement: Implications for Rehabilitation Strategies. *PLOS One*. <https://doi.org/10.1371/journal.pone.0315738>

Reddy Chethan, and Woohyoung Jeon (2024) Identifying Goalkeeper Movement Timing from Single-Camera Broadcast Footage through Pose Estimation: A Pilot Study. *Applied Sciences* 14, no. 13: 5961. <https://doi.org/10.3390/app14135961>

Suzanne Alderete†, Woohyoung Jeon†, Lawrence Abraham (2024) A Preliminary Study on How Combining Internal and External Focus of Attention in a Movement Language Can Improve Movement Patterns. *Appl. Sci.* 2024, 14, 5140. <https://doi.org/10.3390/app14125140> † These authors contributed equally to this work.

Woohyoung Jeon, Xuanliang Neil Dong, Ashley Dalby, Chung-Hyun Goh (2024) The Influence of Smoothness and Speed of Stand-to-Sit movement on joint kinematics, kinetics, and muscle activation patterns. *Front. Hum. Neurosci.* 18:1399179. doi: 10.3389/fnhum.2024.1399179

Woohyoung Jeon, Ahmed Ramadan, Jill Whittall, Nesreen Alissa and Kelly Westlake (2023) Age-related differences in lower limb muscle activation patterns and balance control strategies while walking over a compliant surface. *Sci Rep* 13, 16555 (2023). <https://doi.org/10.1038/s41598-023-43728-0>

Woohyoung Jeon, Ahmed Ramadan, Jill Whittall, Nesreen Alissa and Kelly Westlake (2023) Age-Related Differences in Kinematics, Kinetics, and Muscle Synergy Patterns Following a Sudden Gait Perturbation: Changes in Movement Strategies and Implications for Fall Prevention Rehabilitation. *Appl. Sci.* 2023, 13, 9035. <https://doi.org/10.3390/app13159035>

Woohyoung Jeon, James R. Borrelli, Hao-Yuen Hsiao (2023) Effects of visual input absence on balance recovery responses to lateral standing surface perturbations in older and younger adults. *Journal of Applied Biomechanics*. Advance online publication. <https://doi.org/10.1123/jab.2022-0029>

Woohyoung Jeon, Jill Whittall, Kelly Westlake (2022) Age-related differences in stepping stability following a sudden gait perturbation are associated with lower limb eccentric control of the perturbed limb. *Experimental Gerontology*, 167(111917)

Woohyoung Jeon, Shuaijie Wang, Tanvi Bhatt, Kelly P. Westlake (2022) Perturbation-Induced Protective Arm Responses: Effect of Age, Perturbation-Intensity, and Relationship with Stepping Stability: A Pilot Study. *Brain Sciences*. 2022; 12(7):953. <https://doi.org/10.3390/brainsci12070953>

Woohyoung Jeon, Lisa Griffin, Hao-Yuen Hsiao (2021) Effects of initial foot position on postural responses to lateral standing surface perturbations in younger and older adults. *Gait & Posture* 90 (2021) 449 – 456 <https://doi.org/10.1016/j.gaitpost.2021.09.193>.

Woohyoung Jeon, Jill Whittall, Lisa Griffin, Kelly Westlake (2021) Trunk kinematics and muscle activation patterns during stand-to-sit movement and the relationship with postural stability in aging. *Gait & Posture* 86 (2021) 292-298

Woohyoung Jeon, John Michael Harrison, Philip R. Stanforth, Lisa Griffin (2021) Bone Mineral Density Across Female Olympic Lifters, Power Lifters, and Soccer Players. *Journal of Strength & Conditioning Research*, Vol. 35, No. 3

Woohyoung Jeon, Hao-Yuen Hsiao, Lisa Griffin (2021) Effects of different initial foot positions on kinematics, muscle activation patterns, and postural control during a sit-to-stand in younger and older adults. *Journal of Biomechanics* 117 (2021) 110251. <https://doi.org/10.1016/j.jbiomech.2021.110251>.

Woohyoung Jeon, Jensen Jody L, Lisa Griffin (2019) Muscle activity and balance control during sit-to-stand across symmetric and asymmetric initial foot positions in healthy adults. *Gait & Posture* 71 (2019) 138-144

Woohyoung Jeon and Lisa Griffin (2017) Effects of Pulse Duration on Muscle Fatigue during Electrical Stimulation Inducing Moderate-Level Contraction. *Muscle and Nerve*, 57, 642–649.

RESEARCH PRESENTATIONS AT SCHOLARLY MEETINGS

06/2024	The American Society of Mechanical Engineers (ASME)	Jacob Anthony, Chad Ballard, Chung Goh, Jacob Carr, Woohyoung Jeon <u>Paper Title:</u> Utilizing Reinforcement Learning to Improve Gait Training Performance and Development of Gravity-Compensating Control System for Roborehab Device, <u>Paper Number:</u> IDETC/CIE2024-143328
04/2024	East Texas Research Conference	Woohyoung Jeon^{1*}, Xuanliang Neil Dong¹, Ashley Dalby¹, Chung-Hyun Goh² Influence of Smoothness and Speed of Stand-to-Sit movement on joint kinematics, kinetics, and muscle activation patterns
06/2023	American College of Sports Medicine (ACSM)	W. Jeon, J. Borrelli, H. Hsiao Effects Of Visual Input Absence On Balance Recovery Responses To Lateral Standing Surface Perturbations In Older And Younger Adults
11/2022	American Congress of Rehabilitation Medicine (ACRM) Early Investigators Symposium	W. Jeon, J. Whittall, K. Westlake Contribution of lower limb eccentric control to balance recovery from surface drop perturbations in younger and older adults
08/2021	American Society of Biomechanics (ASB)	W. Jeon, J. Whittall, L. Griffin, K. Westlake Trunk kinematics and lower extremity muscle activation effects on postural stability during stand-to-sit in younger and older adults
06/2021	Gait and Clinical	W. Jeon, L. Griffin, M. Bell, H.-Y. Hsiao

	Movement Analysis Society (GCMAS)	Effect of initial foot position on postural responses to lateral perturbations during standing in younger and older adults
05/2021	Research Day 2021 University of Maryland School of Medicine	W. Jeon, J. Whitall, L. Griffin, K. Westlake Trunk kinematics and muscle activation patterns during stand-to-sit movement and the relationship with postural stability in aging
02/2020	Texas Chapter of the American College of Sports Medicine (TACSM)	W. Jeon, J. M. Harrison, P. Stanforth, L. Griffin. Differences in Bone Mineral Density at the Femoral Neck and Lumbar Regions across Female Soccer Players, Olympic Lifters and Power Lifters. International Journal of Exercise Science: Conference Proceedings: Vol. 2 : Iss. 12, Article 17.
10/2019	Society for Neuroscience (SfN)	W. Jeon, H.-Y. Hsiao, B. Wreford, C. Coronado, L. Griffin. Effects of aging on muscle activation patterns and postural control during a sit-to-stand with different initial foot positions. Program No. 316.03. 2019 Neuroscience Meeting Planner. Chicago, IL: Society for Neuroscience, 2019. Online.
11/2018	Society for Neuroscience (SfN)	W. Jeon, C. V. Mihova, J. L. Jensen, L. Griffin. Muscle activation patterns and balance during a sit-to-stand across symmetric and asymmetric initial foot positions in healthy adults. Program No. 772.01. 2018 Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience, 2018. Online.
11/2017	Society for Neuroscience (SfN)	W. Jeon, D. Gupta, J. Fennell, J. L. Jensen, L. Griffin. Balance and muscle activation patterns during sit-to-stand across four initial foot positions. Program No. 409.05. 2017 Neuroscience Meeting Planner. Washington, DC: Society for Neuroscience, 2017. Online.
06/2016	American College of Sports Medicine (ACSM)	W. Jeon, C. Soodi, L. Griffin. Effects Of Current Amplitude And Pulse Duration Modulation On Neuromuscular Fatigue During Repetitive Electrical Stimulation. Medicine and Science in Sports and Exercise 2016;48(5):314

INVITED SEMINAR PRESENTATIONS

05/2024	Advancing Healthcare and Excellence: Interdisciplinary Research and Innovation University of Texas at Tyler	<i>"Influence of Smoothness and Speed of Stand-to-Sit movement on joint kinematics, kinetics, and muscle activation patterns"</i>
04/2022	Rehabilitation Science Research Seminar University of Maryland, Baltimore, MD	<i>"Contribution of lower limb eccentric control to balance recovery from surface drop perturbations in younger and older adults"</i>
03/2021	Rehabilitation Science Research Seminar University of Maryland, Baltimore, MD	<i>"Effects of different initial foot position on postural control during sit-to-stand and standing balance recovery in response to lateral perturbation in younger and older adults"</i>

RESEARCH FUNDING

Status	Amount	Funding Source	Project Title	Role	Period
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Completed	\$25,000	Myositis Support and Understanding Association	Biomechanical and Neuromuscular Balance Control and Fall Risk in Older Adults with Inclusion Body Myositis (IBM): A Pilot Study	Principal Investigator (PI)	2025 – 2026
Completed	\$30,000	Internal Grants Program Competition	Knee extensor eccentric control for landing balance of stand-to-sit and its relationship with postural stability during perturbation responses	Principal Investigator (PI)	2023 – 2024
Completed	\$5,000	College of Education Small Grants Program	Development of Electrical Stimulation System for Establishing a Sit-to-Stand in individuals with Spinal Cord Injury	Co-Investigator (Co-I)	2017 – 2019

TEACHING EXPERIENCE

KIN 336	– Neuromuscular Control
KIN 424	– Applied Human Anatomy
KIN 327R	– Lab Research (teaching data collection, analysis, and interpretations)
KINE 3331	– Human Motor Control and Learning
KINE 5301	– Research Design and Analysis
KINE 5307	– Motor Learning and Control

MANUSCRIPT REVIEWING ACTIVITIES

Medicine & Science in Sports & Exercise
 Physical Therapy & Rehabilitation Journal (PTJ)
 Neurophysiology and Rehabilitation
 Journal of Musculoskeletal and Neuronal Interactions
 Preventive Medicine and Community Health
 Archives of Physical Medicine and Rehabilitation
 BioMed Research International
 Medical Science Monitor
 Gait and Posture
 Medicine & Science in Sports & Exercise
 PLOS ONE
 Scientific Reports
 Experimental Brain Research
 Brain Research
 Journal of Neurophysiology
 Journal of Applied Biomechanics

GRANT REVIEWING ACTIVITIES

Role	Agency/Organization	Review Panel/Study Section	Agenda Sequence #	Date
Reviewer	National Institutes of Health (NIH)	Aging Systems and Geriatrics Study Section	527199	February 20-21, 2025

TEACHING, STUDENT SUCCESS, and EDUCATION

07/12/2024	ACUE Course in <i>Designing Learner-Centered Courses</i>. This badge signifies my completion of an ACUE course about establishing powerful learning outcomes, aligning assessments,	UT Tyler
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activities, and assignments with course outcomes, developing fair, consistent, and transparent grading practices, developing and using rubrics and checklists, and preparing an effective syllabus. The badge is co-issued by the *American Council on Education and distinguishes faculty* for their commitment to educational excellence and student success.



02/26/2024

ACUE Course in Inspiring Inquiry and Preparing Lifelong Learners.

UT Tyler

This badge signifies my completion of an ACUE course requiring the implementation of evidence-based instructional approaches. The badge is co-issued by the *American Council on Education and distinguishes faculty* for their commitment to educational excellence and student success.



08/2020

Clinical and Translational Research Courses (Completed)
Study Design, Biostatistics & Data Management, Ethical, Legal and Regulatory Issues, Scientific Communication, Grant Writing

UMB &
Baltimore VA

08/2019

Mary Buice Alderson Scholarship (Teaching excellence)

UT Austin

08/2016

Mary Buice Alderson Scholarship (Teaching excellence)

UT Austin

SKILLS

Software MATLAB, Visual 3D, Vicon Nexus, SPSS Statistics, Python, CED Spike2

CERTIFICATES

09/13/2018 MOTEK M-GAIT operator

09/07/2007 Advanced Scuba Diver CMAS KOREA # P2-KOR-F00-07-0594

06/14/2007 Therapeutic Recreation Certification # Korea Recreation Association # 6-75026