CURRICULUM VITAE

MEGHAN E. HUBER

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CURRENT POSITION

Postdoctoral Researcher, June 2016 — Present
The Eric P. and Evelyn E. Newman Laboratory for Biomechanics and Human Rehabilitation
Massachusetts Institute of Technology
Lab Director: Neville Hogan, Ph.D.
Research Topics: Motor Neuroscience, Human-Robot Interaction, Robotics, Physical Interactions

EDUCATION

Ph.D. in Bioengineering, Northeastern University, Boston, MA, August 2016
Thesis Title: Assessing and Enhancing Complex Skill Learning with Virtual Environments: Basic Insights for Motor Rehabilitation
Advisor: Dagmar Sternad, Ph.D.

M.S. in Biomedical Engineering, University of Texas at Dallas, Richardson, TX, May 2011
Specialization: Virtual Medical and Military Training Simulations
Advisor: Marge Zielke, Ph.D.

B.S. in Biomedical Engineering, Rutgers University, New Brunswick, NJ, May 2009
Specialization: Virtual Reality and Human-Machine Interaction
Advisor: Grigore Burdea, Ph.D.

PRIOR EXPERIENCE

Graduate Research Assistant, August 2011 — June 2016
The Action Lab, Northeastern University
Lab Director: Dagmar Sternad, Ph.D.
Research Topics: Motor Neuroscience, Motor Learning, Human-Robot Interaction, Virtual Environments

Junior Scientist, July 2014 — December 2014, May — June 2015
Autonomous Motion Department, Max Planck Institute for Intelligent Systems
Lab Director: Stefan Schaal, Ph.D.
Advisor: Dagmar Sternad, Ph.D.
Research Topics: Human Locomotion, Humanoid Robotics and Control

Project Manager and Graduate Research Assistant, September 2009 — May 2011
Institute for Interactive Arts and Engineering, University of Texas at Dallas
Lab Director: Marge Zielke, Ph.D.
Research Topics: Virtual Medical and Military Training Simulations, Immersive Environments

Research Analyst, May 2011 — May 2012
Oncology Knowledge Management, LLC., Dallas, TX
Developed resources for communicating novel findings in breast cancer research to community oncologists

Undergraduate Research Assistant, May 2007 — May 2009
Human-Machine Interface Lab, Rutgers University
Lab Director: Grigore Burdea, Ph.D.
Research Topics: Virtual Reality and Robotic Rehabilitation, Human-Machine Interaction

ONGOING RESEARCH FUNDING

Postdoctoral Support for
"Novel Interventions and Assessment Measures for Robot-Aided Locomotor Rehabilitation"
$150,000, Samsung, July 2018 — June 2019
Principal Investigator: Neville Hogan
Role: Designed experimental plan, wrote proposal, carrying out experiments
**MIT policy does not permit postdoctoral associates to serve as PIs*

COMPLETED RESEARCH FUNDING

Graduate Dissertation Research Award for
"Assessing and Enhancing Complex Skill Learning with Virtual Environments: Basic Insights for Motor Rehabilitation"
$3,000, Northeastern University Provost Office and College of Engineering, December 2015 — August 2016
Advisor: Dagmar Sternad
Role: Principal Investigator

Graduate Student Support for
"Development of an Adaptive Clinician-Friendly Virtual Rehabilitation System and its Evaluation in Post-Operative Shoulder Therapy" Seed Grant
$50,000, Northeastern University Provost Office, July 2013 — July 2014
Principal Investigator: Dagmar Sternad
Co-Investigators: Miriam Leeser, Amee Seitz
Role: Designed experimental plan, wrote proposal, carried out experiments

Graduate Student Support for
"Development of MATLAB-based Virtual Rehabilitation System Using Microsoft Kinect"
$20,000, The Mathworks, May 2012 — September 2012
Title: "Development of MATLAB-based Virtual Rehabilitation System Using Microsoft Kinect"
Principal Investigator: Miriam Leeser
Advisor: Dagmar Sternad
Role: Designed experimental plan, wrote proposal, carried out experiments

AWARDS

Selected for Rising Stars in Mechanical Engineering Workshop
MIT Department of Mechanical Engineering, October 2018

1st Place Technical Design Team Award
MIT Assistive Technologies (AT) Hackathon, February 2018

Best Student Poster Award (for 2013 International Conference on Virtual Rehabilitation)
International Society for Virtual Rehabilitation, May 2013

Student Travel Award (for 2013 International Conference on Virtual Rehabilitation)
International Society for Virtual Rehabilitation, May 2013

Conference Travel Award (for Biomechanics and Neural Control of Movement 2016)
National Institute of Health (NIH), June 2016

Conference Travel Awards
Graduate Student Government, Northeastern University, 2012, 2013, 2015, 2016

Dean's Fellowship from the College of Engineering
Northeastern University, September 2011 — May 2012

Faculty-Nominated Top 25 Spring 2011 Engineering Graduates
Erik Jonsson School of Engineering and Computer Science, University of Texas at Dallas, May 2011

Jim Jones Leadership Award
Drum Corps International Hall of Fame, August 2008

Biomedical Engineering Honors Academy
Department of Biomedical Engineering, Rutgers University, September 2007 — May 2009

School of Engineering Honors Program
Department of Biomedical Engineering, Rutgers University, September 2005 — May 2009

School of Engineering Dean's List
School of Engineering, Rutgers University, Fall 2005 — 2006, Spring 2006 — 2009

Rutgers University Merit Scholarship
Rutgers University, September 2005 — May 2009

School of Engineering Merit Scholarship
School of Engineering, Rutgers University, September 2005 — May 2009

Edward J. Bloustein Distinguished Scholar
New Jersey Higher Education Assistance Authority, September 2005 — May 2009

INTELLECTUAL PROPERTY

1. Pattinson, S., Hart, A. J., **Huber, M. E.**, Lee, J. (2019). Additively manufactured materials and systems, devices, and methods for manufacturing the same. *US Provisional Patent.*

PUBLICATIONS

Peer-Reviewed Journal Papers

1. Zhang, Z., Guo, D., **Huber, M. E.**, Park, S.-W., & Sternad, D. (2018). Exploiting geometry of solution space to reduce sensitivity to neuromotor noise. *PLoS Computational Biology*, 14(2): e1006013. ****Finalist for Klein-Vogelbach Award for Research on Skill Learning and Rehabilitation****

2. Chiovetto, E., **Huber, M. E.**, Sternad, D., & Giese, M. (2018). Low-dimensional organization of angular momentum during walking on a narrow beam, *Scientific Reports*, 8(1):95.

3. Maurice, P., **Huber, M. E.**, Hogan, N., & Sternad, D. (2018). Velocity-curvature patterns limit human–robot physical interaction. *IEEE Robotics and Automation Letters*, 3(1): 249-256.

4. **Huber, M. E.**, Kuznetsov, N., & Sternad, D. (2016). Persistence of reduced neuromotor noise in long-term motor skill learning. *Journal of Neurophysiology*, 116(6):2922-2935.

5. **Huber, M. E.**, Brown, A. J., & Sternad, D. (2016). Girls *can* play ball: stereotype threat reduces variability in a motor skill. *Acta Psychologia*, *169*:79-87.

6. **Huber, M. E.**, Seitz, A. L., Leeser, M., & Sternad, D. (2015). Validity and reliability of Kinect skeleton for measuring shoulder joint angles. *Physiotherapy*, *101*(4):389–393.

7. **Huber, M. E.**, & Sternad, D. (2015). Implicit guidance to stable performance in a rhythmic perceptual-motor skill. *Experimental Brain Research*, *23*(6):1783-99.

8. **Huber, M. E.**, Seitchik, A. E., Brown, A. J., Sternad, D., & Harkins, S. G. (2015). A mere effort account of stereotype threat in performance of a rhythmic motor skill. *Journal of Experimental Psychology: Human Perception and Performance*, *41*(2): 525-541.

9. Sternad, D., **Huber**, **M. E.**, & Kuznetsov, N. (2014). Acquisition of novel and complex motor skills: stable solutions where intrinsic noise matters less. *Advances in Experimental Medicine and Biology*, *826*:101-124.

10. **Huber, M.**, Rabin, B., Docan, C., Burdea, G., Abdelbaky, M., & Golomb, M. (2010). Feasibility of modified remotely-monitored in-home gaming technology for improving hand function in adolescents with cerebral palsy. *IEEE Transactions on Information Technology in Biomedical Engineering*, *14*(2):526-534.

11. Golomb, M., McDonald, B., Warden, S. J., Yonkman, J., Saykin, A., Shirley, B., **Huber, M.**, Rabin, B., Abdelbaky, M., Nwosu, M., Barkat-Masih, M., & Burdea, G. (2010). In-Home virtual reality videogame telerehabilitation in children with hemiplegic cerebral palsy. *Archives of Physical Medicine and Rehabilitation*, *91*:1-8.

Journal Papers Under Review

12. **Huber, M. E.**, Folinus, C., & Hogan, N. (In Revision). Visual perception of limb stiffness. *Journal of Neurophysiology*.

13. **Huber, M.E.**, Koeppen, R., Sternad, D., & Hogan, N. (In Revision). Humans do not minimize muscle effort to control constrained motion. *Journal of Neurophysiology*.

14. Levac, D., **Huber, M.E.**, & Sternad, D. (In Revision). Modeling real-world tasks in virtual reality: New insights from virtual environment paradigms into learning and transfer of complex motor skills. *Journal of NeuroEngineering and Rehabilitation.*

15. **Huber, M.E.**, Chiovetto, E., Giese, M., & Sternad, D. (Under Review). Rigid foot soles improve balance in beam walking. *Scientific Reports*.

16. Pattinson, S.W., **Huber, M. E.**, Kim, S., Lee, J., Grunsfeld, S., Roberts, R., Dreifus, G., Meier, C., Liu, L., Hogan, N., & Hart, A.J. (Under Review). Additive Manufacturing of Biomechanically Tailored Meshes for Compliant Wearable and Implantable Devices. *Advanced Functional Materials.*

Peer-Reviewed Conference Papers

1. Lee, J., **Huber, M.E.**, Chiovetto, E., Giese, M., Sternad, D., & Hogan, N. (2019, May). Human-inspired balance model to account for foot-beam interaction mechanics. Paper to be presented at *2019 IEEE International Conference on Robotics and Automation*, Montreal, Canada.

2. Lee, J., **Huber, M. E.**, Sternad, D., & Hogan, N. (2018, October). Robot Controllers Compatible with Human Beam Balancing Behavior. Paper presented at *2018 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2018)*, Madrid, Spain.

3. Koeppen, R., **Huber, M. E.**, Sternad, D., & Hogan, N. (2017, October). Controlling physical interactions: Humans do not minimize muscle effort. Paper presented at *2017 Dynamic Systems and Control Conference (DSCC)*, Tyson's Corner, VA. ** **Best Student Paper Finalist** **

4. **Huber, M. E.**, Folinus, C., & Hogan, N. (2017, September). Visual perception of limb stiffness. Paper presented at *2017 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2017)*, Vancouver, BC.

5. **Huber, M. E.**, Seitz, A. L., Leeser, M., & Sternad, D. (2015, June). Accuracy of Kinect for measuring shoulder joint angles in multiple planes of motion. Paper presented at the *2015 International Conference on Virtual Rehabilitation*, Valencia, Spain.

6. **Huber, M. E.**, Seitz, A. L., Leeser, M., & Sternad, D. (2014, April*). Validity and reliability of Kinect for measuring shoulder joint angles.* Paper presented at the *40th Annual Northeast Bioengineering Conference*, Boston, MA.

7. **Huber, M. E.**, & Sternad, D. (2014, April). Implicit guidance to dynamic stability in rhythmic ball bouncing. Paper presented at the *40th Annual Northeast Bioengineering Conference*, Boston, MA.

8. Kuznetsov, N., **Huber, M. E.**, & Sternad, D. (2014, April). Exploratory aspects of variability in learning a novel skill. Paper presented at the *40th Annual Northeast Bioengineering Conference*, Boston, MA.

9. D. Guo, **Huber, M. E.**, & Sternad, D. (2014, April). State space analysis of human timing. Paper presented at the *40th Annual Northeast Bioengineering Conference*, Boston, MA.

10. **Huber, M. E.**, Leeser, M., & Sternad, D. (2013, August). Development of a low-cost, adaptive, clinician-friendly virtual rehabilitation system. Paper presented at *2013 International Conference on Virtual Rehabilitation*, Philadelphia, PA. ** **Best Student Poster Award** **

11. Zielke, M., LeFlore, J., Dufour, F., Hardee, G., **Huber, M.**, Thomas, P., Kanipe, K., Whetstone, E., & Buxkamper, A. (2010, November). Game-based virtual patients – educational opportunities and design challenge. Paper presented at *Interservice/Industry Training, Simulation, and Education Conference 2010*, Orlando, FL.

12. **Huber, M**. (2010, February). Next generation design for an in-home video game enhanced physical therapy system. Paper presented at the *2010 Central American Society of Biomechanics Meeting*, Denton, TX.

13. Golomb, M.R., Barkat-Masih, M., Rabin, B., Abdelbaky, M., **Huber, M.**, & Burdea, G. (2009, June). Eleven months of home virtual reality telerehabilitation - lessons learned. Paper presented at the *2009 International Conference on Virtual Rehabilitation*, Haifa, Israel.

14. **Huber, M.**, Rabin, B., Docan, C., Burdea, B., Nwosu, M., Abdelbaky, M. & Golomb, M. (2008, August). PlayStation 3-based telerehabilitation for children with hemiplegia. Paper presented at *the 2008 International Conference on Virtual Rehabilitation*, Vancouver, Canada.

Conference Papers Under Review

15. *Lee, J., Goetz, D.,* ***Huber, M.E.****, & Hogan, N. (Under Review). Feasibility of gait entrainment to hip mechanical perturbation for locomotor rehabilitation.* Paper being considered for presentation at *2019 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2019)*, Macau.

CONFERENCE ABSTRACTS

1. **Huber, M.E.**, Koeppen, R., Hermus, J., Sternad, D., & Hogan, N. (2018, November). Humans do not minimize muscle effort to control constrained motion. Poster presented at the *2018 Annual Conference of the Society for Neuroscience*, San Diego, CA.

2. Ochoa, J., **Huber, M. E.**, & Hogan, N. (2017, June). Influence of Voluntary Intervention on Gait Entrainment. Abstract presented at *Dynamic Walking 2017*, Mariehamn, Finland.

3. Zhang, Z., **Huber, M. E.**, Park, S. W., & Sternad, D. (2016, November). Structure of solution space in a redundant motor task determines learning. Poster presented at the *2016 Annual Conference of the Society for Neuroscience*, San Diego, CA.

4. **Huber, M. E.,** Kuznetsov, N., & Sternad, D. (2016, June). Persistence of reduced neuromotor noise in long-term motor skill learning. Poster presented at *Biomechanics and Neural Control of Movement (BANCOM) 2016*, Mt. Sterling, OH. ** **NIH Travel Award** **

5. Guo, D., **Huber, M. E.**, Harrigan, K., Zhang, Z., Maurice, P., Cervantes, O., Cheng, R., Wiedemann, J., Owens, K., Tam, H. & Sternad, D. (2016, April). Pitchers and pianists: the age-dependence of human timing. Poster presented at the *Northeastern University Research, Innovation and Scholarship Expo 2016*, Boston, MA.

6. **Huber, M. E.,** Chiovetto, E., Righetti, L., Schaal, S., Giese, M., & Sternad, D. (2015, July). From humans to robots and back: role of arm movement in medio-lateral balance control. Poster presented at *Dynamic Walking 2015*, Columbus, OH.

7. Chiovetto, E., **Huber, M. E.,** Righetti, L., Schaal, S., Giese, M., & Sternad, D. (2015, July). From humans to robots and back: role of arm movement in medio-lateral balance control. Poster presented at *Progress in Motor Control X*, Budapest, Hungary.

8. **Huber, M. E.,** Chiovetto, E., Righetti, L., Schaal, S., Giese, M., & Sternad, D. (2015, June). From humans to robots and back: role of arm movement in medio-lateral balance control. Poster presented at the *7th International Symposium on Adaptive Motion of Animals and Machines*, Cambridge, MA.

9. **Huber, M. E.,** Chiovetto, E., Righetti, L., Schaal, S., Giese, M., & Sternad, D. (2015, April). From humans to robots and back: Role of arm movement in medio-lateral balance control. Poster presented at the *24th Annual meeting of the Neural Control of Movement Society*, Charleston, SC.

10. Kuznetsov, N., **Huber, M. E.**, & Sternad, D. (2015, April). Neuromotor noise can decrease with long-lasting persistence. Poster presented at the *24th Annual meeting of the Neural Control of Movement Society*, Charleston, SC

11. Guo, D., **Huber, M. E.**, & Sternad, D. (2015, April). Want to win the world series? Here's how to pitch a perfect ninth. Poster presented at the *Northeastern University Research, Innovation and Scholarship Expo 2015*, Boston, MA.

12. Brown, A. J., **Huber, M. E.**, Sternad, D., & Harkins, S. G. (2015, February). The effect of stereotype threat on a novel sensorimotor task: Using mere effort and control mechanisms to predict performance. Poster presented at the *Annual Meeting of the Society for Personality and Social Psychology*, Long Beach, CA.

13. Seitz, A. L., **Huber**, **M. E.**, Leeser, M., & Sternad, D. (2014, October). Accuracy and precision of a low-cost virtual rehabilitation system utilizing the Microsoft Kinect to measure shoulder joint motion. Presented as a Platform at the *American Society of Shoulder and Elbow Therapists Annual Meeting*, Pinehurst, NC.

14. Becherer, K., Harris, P. R., **Huber**, **M. E.**, Seitz, A. L., Leeser, M., & Sternad, D. (2014, April). Accuracy and precision of a low-cost virtual rehabilitation system utilizing the Microsoft Kinect to measure shoulder joint motion. Poster presented at the *Northeastern University Research, Innovation and Scholarship Expo 2014*, Boston, MA. ** **Second Place Poster Award** **

15. Guo, D., **Huber, M. E.**, & Sternad, D. (2014, April). State space analysis of human timing: Timing accuracy limit is 9ms. Poster presented at *the Northeastern University Research, Innovation and Scholarship Expo 2014*, Boston, MA.

16. Becherer, K., Harris, P. R., **Huber**, **M. E.**, Seitz, A. L., Leeser, M., & Sternad, D. (2014, March). Accuracy and precision of a low-cost virtual rehabilitation system utilizing the Microsoft Kinect to measure shoulder joint motion. Poster presented at the *25th Annual Communications Digital Signal Processing Center Research Workshop*, Boston, MA.

17. Seitchik, A., **Huber, M. E.**, Brown, A. J., Sternad, D., & Harkins, S. (2014, February). A mere effort account of the effect of stereotype threat on motor performance. Poster presented at the *Annual Meeting of the Society for Personality and Social Psychology*, Austin, TX.

18. **Huber, M. E.,** & Sternad, D. (2013, November). Implicit guidance to dynamic stability in rhythmic ball manipulation. Poster presented at the *2013 Annual Conference of the Society for Neuroscience*, San Diego, CA.

19. Haffner, B., **Huber, M. E.**, & Sternad, D. (2013, November). Enhancing sensitivity to timing in a throwing task. Poster presented at the *2013 Annual Conference of the Society for Neuroscience*, San Diego, CA.

20. **Huber, M. E.,** & Sternad, D. (2013, July). Learning to exploit dynamic stability in a motor task. Poster presented at *Progress in Motor Control IX*, Montreal, Canada.

21. Korsantia, N., **Huber, M. E.,** & Sternad, D. (2013, July). Persistent decrease in neuromotor noise by manipulating error tolerance. Poster presented at *Progress in Motor Control IX*, Montreal, Canada.

22. **Huber, M. E.**, Sternad, D., & Leeser, M. (2013, March). Low cost, adaptable, and clinician-friendly virtual rehabilitation using the Microsoft Kinect. Poster presented at the *Northeastern University Research, Innovation and Scholarship Expo 2013*, Boston, MA.

23. Korsantia, N., **Huber, M. E.,** & Sternad, D. (2013, March). Persistent decrease in neuromotor noise by manipulating error tolerance. Poster presented at the *Northeastern University Research, Innovation and Scholarship Expo 2013*, Boston, MA.

24. **Huber, M. E.**, Lamattina, A. & Sternad, D. (2012, October). Information signaling error tolerance accelerates learning with long-term retention. Poster presented at the *2012 Annual Conference of the Society for Neuroscience*, New Orleans, LA.

25. **Huber, M. E.**, Kyvelidou, A., & Sternad, D. (2012, April). Augmentation of perceived visual error improves control and enhances retention of a discrete task. Poster presented at the *22nd Annual meeting of the Neural Control of Movement Society*, Venice, Italy.

26. **Huber, M. E.,** & Sternad, D. (2012, March). Translating fundamental motor control principles into physical therapy with virtual reality. Poster presented at the *Northeastern University Research, Innovation and Scholarship Expo 2012*, Boston, MA.

27. Lamattina, A., **Huber, M. E.**, & Sternad, D. (2012, March). Augmentation of perceived visual error improves control and retention. Poster presented at the *Northeastern University Research, Innovation and Scholarship Expo 2012*, Boston, MA.

INVITED TALKS

"Understanding and enhancing complex motor skill learning."
University of Colorado at Boulder, Department of Mechanical Engineering, February 12, 2019

"How humans learn, control, and perceive physical interactions."
University of Massachusetts at Amherst, Department of Mechanical Engineering, January 30, 2019

"How humans learn, control, and perceive physical interactions."
University of Delaware, Department of Biomedical Engineering, January 14, 2019

"How humans learn, control, and perceive physical interactions."
NYU Department of Mechanical and Aerospace Engineering, December 7, 2018

"Understanding and enhancing complex motor skill learning."
Apple, November 15, 2017

"Visual Perception of Limb Stiffness."
MIT Robocon 2017, February 10, 2017

"Acquisition of novel and complex motor skills: stable solutions where intrinsic noise matters less."
Draper Laboratory, March 7, 2016

"Telerehabilitation: Clinical potential and challenges."
25th Annual Communications Digital Signal Processing Center Research Workshop, March 28, 2014

"MATLAB-based virtual rehabilitation using Microsoft Kinect."
Application Meeting at The Mathworks, January 16, 2013

"MATLAB-based virtual rehabilitation using Microsoft Kinect."
The Mathworks SMART Laboratory – Northeastern Collaboration Day 2013, February 7, 2013

"Introducing programming with exploratory learning."
The Mathworks SMART Laboratory – Northeastern Collaboration Day 2013, February 7, 2013

POPULAR PRESS

"OpenNI brings virtual rehabilitation programs into patients' homes."
http://openni.ru/articles/openni-brings-virtual-rehabilitation-programs-into-patients-homes/index.html
OpenNI, May 6, 2013

"RISE:2013 highlights: Kinect rehab, Lego lobsters, 3D printed tech and more."
http://www.engadget.com/2013/03/22/rise-2013/
Engadget, March 22, 2013

"Northeastern University's haptic ball-racket system is one pricey game of paddle ball."
http://www.engadget.com/2012/11/15/northeastern-universitys-haptic-ball-racket-system-is-one-price/
Engadget, November 15, 2012

"Modified home video game shows promise for improving hand function in teens with cerebral palsy."
http://news.rutgers.edu/medrel/news-releases/2010/03/modified-home-video-20100316
Rutgers University Media Relations, March 19, 2010

"Virtual reality tele-rehab improves hand function."
http://newsinfo.iu.edu/news/page/normal/13065.html
Indiana University Media Relations, January 10, 2010

TEACHING EXPERIENCE

Teaching Assistant and MATLAB Instructor for NSF-Funded Undergraduate Course "Exploration and Research: Mathematics, Physics, Psychology, and Biology"
Mathematics, Physics, Psychology, and Biology, Northeastern University, Spring 2012 — 2014
- Worked with Dagmar Sternad (Biology, Electrical and Computer Engineering, Physics, Alain Karma (Physics), Chris King (Mathematics), and Adam Reeves (Psychology) to develop and teach programming lessons based on their teaching topics
- Topics included mathematical modeling of dynamical systems, physical modeling ball bouncing system, and perception-action in human motor control

Teaching Assistant and MATLAB Instructor for NSF-Funded Summer School for STEM Freshmen and Sophomores "Summary Discovery PRISM"
Mathematics, Physics, Psychology, and Biology, Northeastern University, Summer 2012 — 2014
- Independently developed lesson plans and taught MATLAB programming in the context of current, advanced research questions
- Topics included classification and machine learning, dynamical systems modeling of protein expression, visual perception, and human motion and physiological data analysis (motion capture, force plates, ECG)

Teaching Assistant and Programming Instructor for Undergraduate/Graduate Course "Virtual Reality"
Electrical and Computer Engineering, Rutgers University, Spring 2008 — 2009
- Organized and independently led VRML and Java3D programming lab course
- Graded and provided assistance to students for lecture course

SUPERVISION OF UNDERGRADUATE MENTEES

Gabrielle Enns
Department of Mechanical Engineering, MIT, January 2019 — Present

Devon Goetz
Department of Brain and Cognitive Sciences, MIT, January 2019 — Present

Emily Satterfield
Department of Mechanical Engineering, MIT, September 2018 — Present

Brandon Koo

Department of Mechanical Engineering, Massachusetts Institute of Technology, January 2018 — May 2018

Charlotte Folinus
Department of Mechanical Engineering, Massachusetts Institute of Technology, January 2017 — January 2018

Ryan Koeppen
Department of Mechanical Engineering, Massachusetts Institute of Technology, July 2016 — January 2018
- Best Student Paper Finalist at 2017 Dynamic Systems and Control Conference (DSCC)
- Best Undergraduate Research Opportunity (UROP) Student at 2017 MIT Mechanical Engineering Research Exhibition (MERE)

Keith Harrigian
Department of Mathematics, Northeastern University, Fall 2015 — June 2016

Julie Wiedemann
Department of Mathematics and Physics, Northeastern University, Fall 2015 — June 2016

Katie Owens
Department of Behavioral Neuroscience, Northeastern University, Fall 2015 — June 2016

Hannah Tam
Department of Biology, Northeastern University, Fall 2015 — June 2016

Oliver Cervantes
Department of Biology, Northeastern University, Fall 2015 — June 2016

Rebecca Cheng
Department of Biomedical Physics, Northeastern University, Spring 2015 — June 2016

Dena Guo
Department of Biomedical Physics, Northeastern University, Spring 2014 — June 2016
- Senior Thesis Scholarship from the Museum of Science, Boston
- Advanced Research/Creative Endeavor Award from the Provost Office at Northeastern University
- Lawrence Research Fellowship from the Department of Physics at Northeastern University
- Lawrence Award for Academic Excellence from the Department of Physics at Northeastern University

Brittany Haffner
Department of Biomedical Physics, Northeastern University, Spring 2013

Anthony LaMattina
Department of Mathematics, Northeastern University, Fall 2012

UNIVERSITY SERVICE

Panelist Organizer
MIT Office of the Vice President for Research, Massachusetts Institute of Technology, 2017
- Organized an event where a panel senior postdocs and junior faculty discussed how to make the most one's postdoc experience.

Conference Organizer
MIT Robocon 2017, Massachusetts Institute of Technology, 2017
- Invited keynote speakers, student presenters, and industry participants to participate in a student/postdoc-led conference aimed at fostering collaboration in robotics research around the Greater Boston area.

Corresponding Secretary
Post Doctoral Association (PDA), Massachusetts Institute of Technology, 2016-2017
- In charge of the PDA's correspondence, which involves answering and forwarding all emails and keeping the postdoc community informed about events through the weekly newsletter.

Director of Public Relations
Graduate Women in Science and Engineering, Northeastern University, 2015 — 2016
- Collaborated with NEU Writing Center are hosting a daylong writing event for Northeastern graduate students and post docs in science and engineering

PROFESSIONAL SERVICE AND AFFILIATIONS

Conference Workshop Organizer
1. Maurice, P., **Huber, M. E.**, Latella, C., Ivaldi, S.& Hogan, N. (Accepted). Human movement science for physical human-robot collaboration. Workshop to be held at *2019 International Conference of Robotics and Automation*, Montreal, Canada

Journal Reviewer
IEEE Robotics and Automation – Letters, IEEE Transactions on Mechatronics, IEEE Transactions on Neural Systems and Rehabilitation Engineering, Current Biology, PloS Computational Biology, Experimental Brain Research, PeerJ, BioMedical Engineering OnLine

Conference Reviewer
IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), IEEE International Conference of Robotics and Automation

Member of Professional Societies
American Society of Mechanical Engineers, International Society for Motor Control, Society for Neuroscience, Institute of Electrical and Electronic Engineers, Robotics and Automation Society

COMMUNITY SERVICE AND OUTREACH

Researcher at the Living Laboratory Exhibit
Museum of Science, Boston, October 2015 — May 2016

Front/backend Web Developer
Common Cod Fiber Guild, June 2015 — June 2017

Media and Communications Volunteer for The Boston Marathon
Boston Athletic Association, April 2014 — Present

Volunteer at Robotics Workshop for John Hopkins Center for Talented Youth
Northeastern University, Summer 2012