

Stephen Antos

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EDUCATION

2019 (Expected) Ph.D. Biomedical Engineering, Northwestern University (GPA: 3.97/4.0)
2016 Doctorate of Physical Therapy, Northwestern University (GPA: 3.94/4.0)
2011 B.S. Biomedical Engineering, University of Rochester (GPA: 3.96/4.0)

LICENSURE AND CERTIFICATION

2016 Licensed physical therapist, IL. Examination score: 800/800
2013 American Heart Association BLS for Healthcare Providers (CPR & AED)

RESEARCH EXPERIENCE

Northwestern University

2012 – present Ph.D. Candidate
Investigating how energy and balance influence decision making during gait.
Tracking walker and cane adherence in older adults at a high risk of falls.
Applying machine learning to rehabilitation outcomes.
Supervisors: Konrad Kording, Keith Gordon

2012 Studied effects of rTMS and tDCS on motor control for stroke survivors.
Supervisors: Lynn Rogers and Richard Harvey

2012 Developed robust activity recognition algorithms using mobile phones.
Supervisor: Konrad Kording

2012 Investigated elbow joint impedance during movement initiation.
Supervisor: Eric Perreault

2010 Investigated safety of osseointegrated prostheses for amputees.
Supervisor: Todd Kuiken

University of Rochester

2009 – 2011 Studied effects of DBS and medication on reaching in Parkinson's.
Supervisor: Greg Gdowski

2008 – 2011 Developed a tool for nurses to rate distress in premature infants
Supervisors: Laurel Carney, Martin Schiavenato

PUBLICATIONS

Antos, S. A., Albert, M. V., & Kording, K. P. (2014). Hand, belt, pocket or bag: Practical activity tracking with mobile phones. *J Neurosci Methods*, 231, 22-30.
doi:10.1016/j.jneumeth.2013.09.015

Schiavenato, M., **Antos, S. A.**, Bell, F. A., Freedman, B. R., Kozak, A. J., Kroot, T. B., . . . Carney, L. H. (2013). Development of a scale for estimating procedural distress in the newborn intensive care unit: the Procedural Load Index. *Early Hum Dev*, 89(9), 615-619.
doi:10.1016/j.earlhumdev.2013.04.007

Ludvig, D., **Antos, S. A.**, & Perreault, E. J. (2012). Joint impedance decreases during movement initiation. *Conf Proc IEEE Eng Med Biol Soc*, 2012, 3304-3307.
doi:10.1109/EMBC.2012.6346671

ABSTRACTS, POSTERS, AND PRESENTATIONS

Antos, S.A.; Danilovich, M.; Gordon, K.E.; Kording, K.P. (2018) Technology to track adherence: smartwatches can detect walker and cane use in older adults at a high risk of falls. *APTA CSM*. New Orleans, LA (presentation)

Antos, S.A.; Danilovich, M.; Gordon, K.E.; Kording, K.P. (2018) Technology to track adherence: smartwatches can detect walker and cane use in older adults at a high risk of falls. *PTJPAL*, 18(2), 34 (published abstract)

Antos, S.A.; Kording, K.P.; Gordon, K.E. (2017) Do we minimize energy expenditure when choosing between gait patterns? *ASB Annual Meeting*. Boulder, CO (poster).

Antos, S.A. (2017) Research in-service: understanding research grants. *Northwestern Memorial Hospital*, Chicago, IL (presentation).

Antos, S.A., Kording, K.P., Gordon, K.E. (2016) A method to measure step length preferences during walking. *MRS Training Day*, Chicago, IL (abstract/poster)

Antos, S.A., Albert, M.V., Kording, K.P. (2013) Activity tracking with smartphones: phone location matters. *BMES Annual Meeting*, Seattle, WA (abstract/poster).

Antos, S.A., Matsubara, J.H., Gordon, K.E. (2013) Adding a balance component to body weight supported treadmill training. *VA Research Day*, Chicago, IL (abstract/poster).

Matsubara, J.H., **Antos, S.A.**, Gordon, K.E. (2013) Simple measures of dynamic stability and maneuverability. *Dynamic Walking*, Pittsburgh, PA (abstract/poster/presentation)

Antos, S.A., Bell, F.A., Freedman, B.R., Kozak, A.J, Kroot, T.B., Lam, E.H., Ross, K.E., Sternfield, B.A., Carney, L.H., Schiavenato, M. (2009) Defining and Measuring Procedure Load Index Values for Premature Infants. *BMES Annual Meeting*, Pittsburgh, PA (abstract/poster).

WORK EXPERIENCE

2016 – present	Northwestern Memorial Hospital, Registry Physical Therapist
2016	Northwestern Memorial Hospital, Acute Care, PT Student (13 weeks)
2015	Rehab Institute of Chicago, Inpatient Rehab, PT Student (13 weeks)
2015	Unity Point at Home, Home Health, PT Student (6 weeks)
2014	Carle Foundation Hospital, Outpatient Orthopedics, PT Student (6 weeks)
2009	Ortho Clinical Diagnostics (Johnson & Johnson), Bioinformatics
2006 – 2008	ITT, Information Technology

TEACHING EXPERIENCE

Northwestern University

2016 – 2018	Contract faculty, Kinesiology I & II
2018	Teaching assistant, Quantitative Systems Physiology
2017 – 2018	Searle Teaching Certificate Program

University of Rochester

2010 - 2011	Teaching assistant, Biosystems and Circuits
2008 - 2009	Teaching assistant, Intro to Computer Programming

COMMUNITY SERVICE

2011 – 2018	Shirley Ryan Ability Lab, Outpatient pediatrics volunteer
2014 – 2017	JourneyCare, Home and inpatient hospice volunteer
2010 – 2011	Unity Health Acute Rehabilitation, Volunteer
2005 – 2011	Special Olympics, Assistant coach

HONORS AND AWARDS

2018	Best Platform Presentation, CSM Health Policy and Administration Section
2017	Promotion of Doctoral Studies (PODS) II Scholar
2017	Northwestern Data Science Initiative Trainee
2016	Dean's Feinberg DPT/PhD Scholar
2012, 2016	NIH Predoctoral Training Grant Trainee
2011	Cabell Fellow, Northwestern University
2011	Magna Cum Laude with Highest Distinction, University of Rochester
2011	Citation for Achievement in College Leadership, University of Rochester
2010, 2011	Most outstanding student in Biomedical Engineering (top of class)
2010	Joseph W. Campbell-Susan L. Costa Memorial Scholarship
2007	FIRST Robotics Scholarship
2006	Bausch and Lomb Honorary Science Award
2006	Kodak Young Leaders Award

PROFESSIONAL AFFILIATIONS

2017	American Society of Biomechanics	Student Member
2013	American Physical Therapy Association	Member
2011	Alpha Eta Mu Beta	Member
2011	Order of the Engineer	Member
2011	Phi Beta Kappa	Member
2010	Tau Beta Pi	Member
2009	Biomedical Engineering Society	Student Member