

EDUCATION

- Harvard University** | PhD student in Computer Science 2016 –
 Advisor: Prof. Radhika Nagpal
- Imperial College London** | Master of Research in Bioengineering, with Distinction 2016
 Advisors: Prof. Etienne Burdet, Dr. Ildar Farkhatdinov
 Thesis: *Assisting Balance Recovery with a Lower Limb Exoskeleton*
- Northeastern University** | BS in Behavioral Neuroscience, Minor in Computer Science 2015
 GPA: 3.98 / 4.0, summa cum laude
 Honors Thesis: *Asymmetric Learning in an Asymmetric Bimanual Task*

RESEARCH

- Harvard Self-organizing Systems Research Group** | Prof. Radhika Nagpal 2016 –
 Multi-feature perception and decision making in robot collectives
- Imperial College Human Robotics Group** | Prof. Etienne Burdet, Dr. Ildar Farkhatdinov 2015 – 2016
 Co-control of balance recovery in a lower limb exoskeleton
- Northeastern University Action Lab** | Prof. Dagmar Sternad 2014 – 2015
 Prediction and stability in control of objects with complex dynamics
 Learning and long-term retention of an asymmetric bimanual task 2012 – 2015
 Effects of central fatigue on cognitive and motor performance 2011 – 2012
- Northeastern University Marine Science Center** | Prof. Joseph Ayers May – August 2015
 Neuro-inspired rheotaxis and antenna design in a robotic lobster
- Max Planck Institute for Intelligent Systems** | Prof. Stefan Schaal July – December 2013
 Learning and exploration in a novel dimensionality-reduction task

GRANTS AND SCHOLARSHIPS

- Department of Energy Computational Science Graduate Fellowship (DOE CSGF) 2016
- Marshall Scholarship 2015
- Northeastern Provost Undergraduate Advanced Research Award 2014
- Goldwater Scholarship 2013
- Northeastern Provost Undergraduate Research Award 2013
- DAAD Undergraduate Scholarship 2013
- Northeastern Presidential Global Scholarship 2013
- Northeastern National Merit Scholarship 2010

AWARDS

- Hertz Fellowship Finalist 2016
- National Science Foundation Graduate Research Fellowship Program (NSF GRFP) Honorable Mention 2016
- Northeastern University Honors Program Distinction 2015
- Northeastern Honors in the Behavioral Neuroscience 2015
- Northeastern Alex Skavenski Award for Behavioral Neuroscience 2015
- Northeastern Sears B. Condit Award for academic achievement 2015
- Northeastern Dean's List (6 semesters) 2010 – 2015
- Rhodes, Fulbright, and Mitchell Scholarship Finalist 2015

PUBLICATIONS

- S. Bazzi, **J. Ebert**, N. Hogan, and D. Sternad, "Stability and Predictability in Dynamically Complex Physical Interactions," *ICRA 2018*.
- J. Ebert**, M. Gauci, and R. Nagpal, "Multi-Feature Decision Making in Agent Collectives," *AAMAS 2018*.
- [*In preparation*] S. Park, **J. Ebert**, D. Sternad, "Asymmetric Learning in an Asymmetric Bimanual Task."

CONFERENCES ABSTRACTS AND POSTERS

J. Ebert, C. Teeple, E. Steinhardt, and S. Ramanathan, "Infotaxis in a Multi-agent Sensor Network." Poster at: *DOE CSGF Program Review*; 24–27 July 2017; Washington, DC.

I. Farkhatdinov, **J. Ebert**, G. van Oort, E. van Asseldonk, and E. Burdet, "Human Balance Augmentation with Lower Limb Exoskeleton Robot." Extended abstract and poster at: *RehabWeek 2017 workshop: Towards a next generation of wearable robotic devices for human-oriented assistance and therapy*; 17 July 2017; London, UK.

J. Ebert, I. Farkhatdinov, G. van Oort, E. van Asseldonk, and E. Burdet, "Preliminary Study on Assisting Balance Recovery with Lower Limb Exoskeleton." Work in progress paper and poster at: *EuroHaptics 2016*; 4–7 July 2016; London, UK.

D. Sternad, A. Mukovskiy, **J. Ebert**, and T. Dijkstra, "Dynamic Stability in the Control of Complex Objects." Poster at: *Biomechanics and Neural Control of Movement 2016*; 12–17 June 2016; Mt. Sterling, OH.

J. Ebert, S. Park, and D. Sternad, "Asymmetric Learning in an Asymmetric Bimanual Task." Poster at: *Society for the Neural Control of Movement 25th Annual Meeting*; 20–24 April 2015; Charleston, SC.

J. Ebert, A. Mukovskiy, T. Dijkstra, and D. Sternad, "Why You Don't Spill Your Coffee." Poster at: *Northeastern University Research, Innovation, and Scholarship Expo (RISE)*; 9 April 2015; Boston, MA.

J. Ebert, S. Kim, D. Sternad, and S. Schaal, "Learning and exploration in a novel dimensionality-reduction task." Poster at: *Society for the Neural Control of Movement 24th Annual Meeting*; 20–25 April 2014; Amsterdam, NL.

J. Ebert, S. Park, and D. Sternad, "Asymmetric Learning in an Asymmetric Bimanual Task." Poster at: *Northeastern University Research, Innovation, and Scholarship Expo (RISE)*; 10 April 2014; Boston, MA.

J. Ebert, S. Park, and D. Sternad, "Asymmetric Learning in an Asymmetric Bimanual Task." Poster at: *Northeast Undergraduate Research and Development Symposium*; 2–3 March 2013; Biddeford, ME.

J. Ebert, S. Park, L. Griffin, T. O'Neil-Pirozzi, and D. Sternad, "Central Fatigue in Cognitive and Motor Performance." Poster at: *Northeastern University Research, Innovation, and Scholarship Expo (RISE)*; 29 March 2012; Boston, MA.

TALKS

J. Ebert, M. Gauci, and R. Nagpal, "Collective Perception and Decision Making in Heterogeneous Swarms," *Wyss Institute Molecular Robotics Initiative*; 14 September 2017

TEACHING

Harvard University

CS 189: Autonomous Robot Systems, Teaching Fellow

Spring 2018

Northeastern University

CS 2510: Fundamentals of Computer Science, Teaching Assistant (2 semesters)

2014 – 2015

CS 2510: Fundamentals of Computer Science, Tutor (3 semesters)

2012 – 2014

Proactive Recruitment in Science and Mathematics (PRISM), Undergraduate Mentor

2011 – 2013

EMPLOYMENT

Interactive Motion Technologies

Software Development Co-op

July – September 2014

SERVICE

Northeastern Civic Engagement Program

2010 – 2015

Boston Bikes volunteer

2014 – 2015

Tutor team leader at TechBoston Academy

2014

Brigham and Women's Hospital: Medical Career Exploration Program volunteer

2011 – 2013

Massachusetts General Hospital: Youth Program mentor

2010 – 2011

SKILLS

Programming Languages

Python (including Django, NumPy, SciPy, Matplotlib) • MATLAB • C/C++ (including OpenMP, AVR, Arduino) • HTML/CSS • \LaTeX • JavaScript • Java • Simulink • LabView

Fabrication

Laser cutting • 3D printing • Vinyl cutting • CNC milling, ShopBot • Electronics design (Eagle) and production • Soldering • Sewing • Molding and casting

Other

Computer-aided design (OnShape) • Database design • Linux • Embedded programming • 3D motion capture • Kinematic and EEG data collection in human subjects

RELEVANT COURSEWORK

Computer Science

Biologically-inspired Multi-agent Systems • Distributed Systems • Machine Learning • Network Algorithms • Computational Neurodynamics • Artificial Intelligence • Robotics

Science and Engineering

How to Make (Almost) Anything • Biomimetics • Comparative Neurobiology • Human Neuroanatomy • Biochemistry • Genetics and Molecular Biology • Organic Chemistry

Mathematics

Biological Signal Processing • Statistics and Data Analysis • Multivariable Calculus • Linear Algebra • Differential Equations

ACTIVITIES AND INTERESTS

Harvard University curling team

Imperial College fencing club

Northeastern University pep band, drumline, and wind ensemble

Cycling • Web design and development • Graphic design • Writing • Baking