

Alexander Broad

www.alexanderbroad.com
alexsbroad@gmail.com

EDUCATION

- May 2019 **Northwestern University.** PhD in Computer Science.
Research Areas: Machine Learning, Robotics, Control, Perception.
- May 2011 **Washington University in St. Louis.** MS in Computer Science.
Research Areas: Machine Learning, Robotics, Reinforcement Learning.
- May 2009 **Washington University in St. Louis.**
BA in Mathematics & Philosophy, Neuroscience and Psychology (PNP)

EXPERIENCE

- 2019–Present **Boston Dynamics.** Researcher exploring machine learning in robotics.
- 2014–2019 **Northwestern University.** Graduate student in robotics and machine learning.
- 2017 **Mitsubishi Electric Research Laboratories.** Research intern in machine learning.
- 2011–2014 **MIT Lincoln Laboratory.** Associate Technical Staff exploring machine learning research.

SELECTED PUBLICATIONS

- 2019 Broad, A. “Generalizable Data-Driven Models for Personalized Shared Control of Human-Machine Systems”. PhD Thesis. Northwestern University.
- Broad, A., Murphey, T., Argall, B. “Highly Parallelized Data-driven MPC for Minimal Intervention Shared Control”. RSS.
- 2018 Broad, A., Murphey, T., Argall, B. “Operation and Imitation under Safety-Aware Shared Control”. WAFR.
- Broad, A., Lee, T-Y., Jones, M. “Recurrent Multi-frame Single Shot Detector for Video Object Detection”. BMVC.
- Broad, A., Abraham, I., Murphey, T., Argall, B. “Structured Neural Network Dynamics for Model-based Control”. RSS workshop on Learning and Inference in Robotics.
- 2017 Broad, A., Murphey, T., Argall, B. “Learning Models for Shared Control of Human-Machine Systems with Unknown Dynamics”. RSS.
- Broad, A., Arkin, J., Ratliff, N., Howard, T., Argall, B. “Real-Time Natural Language Corrections for Assistive Robotic Manipulators”. IJRR.