Bradly C. Stadie

Email: bstadie@vectorinstitute.ai

Education

University of Chicago

BA in Mathematics (Honors)

Chicago, IL

September 2010 - June 2014

University of California, Berkeley

Ph.D in Statistics

Berkeley, CA August 2014 - August 2018

Employment

Vector Institute

Postdoctoral Scholar

Toronto, Canada August 2018 - July 2020

• Postdoctoral researcher at the Vector Institute at the University of Toronto

Open AI

Research Scientist

San Francisco, USA

March 2016 - November 2017

- Full-time research scientist at Open AI
- Advised by Ilya Sutskever

AI Expert at Y Combinator

Part-time Partner

San Francisco, USA January 2017 - January 2018

- Advised Y Combinator on the latest trends in AI
- Advised over 50 startups on AI and ML problems

Young Scholars Program/SESAME

Counselor

Chicago, USA

June 2011 - May 2013

- Taught mathematics to Chicagoland high school students and CPS teachers
- Full-time during summers. Every Saturday and Sunday during school year
- Was head counselor from June 2012 May 2013

Conference Publications

1. Third-Person Imitation Learning

Bradly C. Stadie, Pieter Abbeel, Ilya Sutskever

In the proceedings of the International Conference on Learning Representations (ICLR), Toulon, France, April 2017 arXiv: https://arxiv.org/pdf/1703.01703.pdf

2. One-Shot Imitation Learning

Yan (Rocky) Duan, Marcin Andrychowicz, Bradly C. Stadie, Jonathan Ho, Jonas Schneider, Ilya Sutskever, Pieter Abbeel, Wojciech Zaremba

In Neural Information Processing Systems (NeurIPS), Long Beach, California, December 2017 arXiv: https://arxiv.org/pdf/1703.07326.pdf

3. Some Considerations on Learning to Explore via Meta-Reinforcement Learning

Bradly C. Stadie, Ge Yang, Rein Houthooft, Xi Chen, Yan Duan, Yuhuai Wu, Pieter Abbeel, Ilya Sutskever In Neural Information Processing Systems (NeurIPS), Montreal, Canada, December 2018

arXiv: https://arxiv.org/pdf/1803.01118.pdf

4. Evolved Policy Gradients

Rein Houthooft, Richard Y. Chen, Phillip Isola, Bradly C. Stadie, Filip Wolski, Jonathan Ho, Pieter Abbeel In Neural Information Processing Systems (NeurIPS) [Spotlight], Montreal, Canada, December 2018 arXiv: https://arxiv.org/pdf/1802.04821.pdf

5. One-Shot Pruning of Recurrent Neural Networks by Jacobian Spectrum Evaluation Matthew Zhang, Bradly C. Stadie

In International Conference on Learning Representations (ICLR), Addis Ababa, Ethiopia, April 2020

ArXiv: https://arxiv.org/pdf/1912.00120.pdf

6. Sampling Aware Reinforcement Learning

Lunjun Zhang, Bradly C. Stadie, Jimmy Ba

Conference on Uncertainty in Artificial Intelligence (UAI), July 2020. Available at: https://github.com/bstadie/All-Bradly-Stadie-Papers/

Workshop Publications

Incentivizing Exploration in Reinforcement Learning with Deep Predictive Models
 Bradly C. Stadie, Sergey Levine, Pieter Abbeel
 In Neural Information Processing Systems (NeurIPS) Deep RL Workshop, Montreal, Canada, December 2015
 arXiv: https://arxiv.org/pdf/1507.00814.pdf

2. Transfer Learning for Estimating Causal Effects Using Neural Networks.

Bradly C. Stadie, Soeren R. Kuenzel, Nikita Vemuri, Varsha Ramakrishnan, Jasjeet S. Sekhon, Pieter Abbeel INFORMS Annual Meeting ML and causal inference workshop (2019)

arXiv: https://arxiv.org/pdf/1808.07804.pdf

3. Learning to Learn from Flawed, Failed, and Figurative Demonstrations
Ge Yang, Bradly C. Stadie, Roberto Calandra, Pieter Abbeel, Sergey Levine, Chelsea Finn
In Neural Information Processing Systems (NeurIPS) Deep RL workshop [Spotlight], Montreal, Canada, December 2018. Submitted to ICML 2020.

Available at: https://github.com/bstadie/All-Bradly-Stadie-Papers/

Preprints

1. Simulating the Stochastic Dynamics and Cascade Failure of Power Networks
Charles Matthews, Bradly C. Stadie, Jonathan Weare, Mihai Anitescu, Christopher Demarco
Submitted to IEEE Transactions on Power Systems. Under Review.
arXiv: https://arxiv.org/pdf/1806.02420.pdf

2. One-Demonstration Imitation Learning
Bradly C. Stadie, Siyan Zhao, Qiqi Xu, Bonnie Li, Lunjun Zhang

Bradly C. Stadie, Siyan Zhao, Qiqi Xu, Bonnie Li, Lunjun Zhang Submitted to ICML 2020.

Preprint. Available at: https://github.com/bstadie/All-Bradly-Stadie-Papers/

3. Maximum Entropy Gain Exploration for Long Horizon Multi-goal Reinforcement Learning Harris Chan, Silviu Pitis, Stephen Zhao, Bradly C. Stadie, Jimmy Ba. Submitted to ICML 2020.

Invited Talks

- Northwestern University invited speaker (October 2019): Learning reward functions.
- INFORMS panel on ML in causal inference (October 2019): Transfer learning causal effects.
- University of Illinois, Urbana Champaign (October 2019): Learning reward functions.
- Toyota Technological Institute, Chicago (May 2019): Learning from imperfect data.
- University of Wisconsin, Madison (April 2019): Learning from imperfect data.
- Purdue University (April 2019): Learning from imperfect data.
- University of Montreal (February 2018): The relationship between sampling and meta learning.
- University of Toronto (February 2018): The relationship between sampling and meta learning.
- Harvard University 2017 Big Data Conference (August 2017): Frontiers of meta learning.
- Open AI (March 2016): Exploration in deep reinforcement learning.

Teaching

- Statistics 133: Concepts in Computing with Data. Graduate Student Instructor. Jan May 2015
- Statistics 088: Introduction to Data Science. Graduate Student Instructor. Jan May 2016