

ASHLEY D. EDWARDS

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CAREER OBJECTIVE

I am interested in research involving reinforcement learning, robotics, and machine learning.

EDUCATION

Georgia Institute of Technology, Atlanta, GA

August 2011 - May 2019

- PhD in Computer Science: GPA 3.66
- Awarded 2012-2015 NSF Graduate Research Fellowship
- Awarded 2015-2016 Xerox Technical Minority Scholarship

University of Georgia, Athens, GA

August 2007 - May 2011

- Bachelor of Science in Computer Science: GPA 3.58
 - Awarded HOPE Scholarship from 2007-2011
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TECHNICAL SKILLS

Languages

- Proficient in: Java, Python
- Experience with: C/C++, Matlab

Software & Technology

- Platforms: Windows, Linux, OS X, Amazon EC2
 - Libraries: OpenCV, Tensorflow, Pytorch
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EXPERIENCE

Research Scientist

March 2019 - June 2020

Uber AI Labs, San Francisco, CA

- Research in reinforcement learning

Software Engineering Intern

Summer 2017

Google Brain, Mountain View, CA

- Research within the Google Brain team

Software Engineering Intern

Summer 2016

Google Photos, Mountain View, CA

- Research and Development within the Google Photos team

Graduate Research Assistant

Aug 2011 - May 2019

Georgia Institute of Technology, Atlanta, GA

- Research in Reinforcement Learning in Dr. Charles Isbell's Lab

Graduate Teaching Assistant Fall 2015

Georgia Institute of Technology, Atlanta, GA

- TA for Dr. Charles Isbell and Dr. Michael Littman's Graduate Level Reinforcement Learning Course at Udacity

NSF GROW Fellow Summer 2015

Waseda University, Tokyo, Japan

- Summer research intern in Dr. Atsuo Takanishi's research lab
- Developed Reinforcement Learning algorithm to train agents to learn behavior from videos without tracking features

Graduate Teaching Assistant Fall 2012

Georgia Institute of Technology, Atlanta, GA

- TA for Dr. Thad Starner's Graduate Level AI Class

Temp Operations Specialist June 2011 - August 2011

CGI, Atlanta, GA

- Added features and verified code fixes within software

NSF Funded Undergraduate Research June 2010 - July 2010

Rutgers University, Piscataway, NJ

- Developed Higher-Order Q-Learning in Dr. William Pottenger's research lab

Independent Study Spring 2010

University of Georgia, Athens, GA

- Studied multi-agent RL in Dr. Prashant Doshi's lab

NSF Funded Undergraduate Research June 2009 - August 2009

University of Massachusetts, Amherst, MA

- Studied and implemented common reinforcement learning problems in Dr. Andy Barto's "Autonomous Learning Lab"

PUBLICATIONS

Edwards, A., Sahni, H., Liu, R., Hung, J., Jain, A., Wang, R., Ecoffet, A., Miconi, T., Isbell, C., Yosinski, J. "Estimating Q(s,s') with Deep Deterministic Dynamics Gradients." In the *Proceedings of the 37th International Conference on Machine Learning (ICML)*. Vienna, Austria, July 2020.

Edwards, A., Sahni, H., Schroecker, Y., Isbell, C. "Imitating Latent Policies from Observation." In the *Proceedings of the 36th International Conference on Machine Learning (ICML)*. California, USA, June 2019.

Edwards, A., Isbell, C. "Perceptual Values from Observation." In the *Workshop on Self-Supervised Learning*. California, USA, June 2019 (ICML workshop).

Edwards, A., Downs, L., Davidson, J. “Forward Backward Reinforcement Learning.” In the *Machine Learning in Planning and Control of Robot Motion workshop*. Brisbane, Australia, May 2018 (ICRA workshop).

Edwards, A., Isbell, C. “Transferring Agent Behaviors from Videos via Motion GANs.” In *Deep Reinforcement Learning Symposium*. California, USA, December 2017 (NIPS Symposium).

Edwards, A., Hood, S., Isbell, C. “Cross-Domain Perceptual Rewards for Reinforcement Learning.” In *The 3rd Multidisciplinary Conference on Reinforcement Learning and Decision Making*. Michigan, USA, June 2017

Edwards, A., Isbell, C., Takanishi, A. “Perceptual Reward Functions.” In *Deep Reinforcement Learning: Frontiers and Challenges*. New York, USA, July 2016. (IJCAI Workshop).

Edwards, A., Littman, M., Isbell, C. “Expressing Tasks Robustly via Multiple Discount Factors.” In *The 2nd Multidisciplinary Conference on Reinforcement Learning and Decision Making*. Edmonton, Canada. June 2015.

Edwards, A. and Pottenger, W. M. “Higher Order Q-Learning.” In *IEEE Symposium on Adaptive Dynamic Programming and Reinforcement Learning*. Paris, France. April 2011.

INVITED TALKS AND TEACHING

Estimating $Q(s,s')$ with Deep Deterministic Dynamics Gradients TBD
Invited talk at Janelia

Panel at ICML *New in ML* workshop July 2020

Learning Values and Policies from State Observations Dec 2019
Invited talk at WIML

Learning Values and Policies from State Observations Oct 2019
Invited talk at Osaro

Learning Values and Policies from State Observations Oct 2019
Invited talk at WISDOM Moving the World with Data

Learning Values and Policies from State Observations June 2019
Invited talk at Rework Deep Reinforcement Learning Summit

Q-Learning, Sarsa, and Monte Carlo Tree Search April 2016
Guest Lecture for Dr. Charles Isbell’s Undergraduate Machine Learning Course.

Monte Carlo, Policy Iteration, and TD Methods April 2016

Guest lecture for Dr. Charles Isbell's Undergraduate Machine Learning Course.

Q-Learning and Sarsa

April 2015

Guest Lecture for Dr. Charles Isbell's Undergraduate Machine Learning Course.

Higher Order Q-Learning

February 2011

Presentation for Dr. Michael Littman's lab at Rutgers University.

SERVICE

Lifelong ML Reviewer	Summer 2020
ICML Reviewer	Winter 2020
WIML lunch mentor	Winter 2020
AAAI Reviewer	Fall 2019
NeurIPS Reviewer (Top 50%)	Summer 2019
ICML Reviewer	Winter 2019
Reviewer for ICML Workshop on Multi-Task and Lifelong RL	Spring 2019
Co-organized 1st Workshop on Goal Specifications for RL at ICML	Summer 2018
Reviewer for Exploration in RL workshop at ICML	Summer 2018
Reviewer for Black in AI Workshop	Fall 2017
Volunteer for SOCML	Fall 2017
Reviewer for Future of Interactive Learning Machines Workshop at NIPS	Fall 2016
NeurIPS Reviewer	Summer 2016
Volunteer for RLDM	Summer 2015