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# William Whitney

education

Ph.D, Computer Science, New York University, 2016 – present.
Advisor: Kyunghyun Cho

M.Eng., Computer Science, Massachusetts Institute of Technology, 2016.
Thesis: *Disentangled Representations in Neural Models*.
Advisor: Joshua B. Tenenbaum

S.B., Computer Science, Massachusetts Institute of Technology, 2013.

publications

William F. Whitney, Rajat Agarwal, Kyunghyun Cho, and Abhinav Gupta. Dynamics-aware Embeddings. In *International Conference on Learning Representations*, 2020.

William F. Whitney and Abhinav Gupta. Learning Effect-Dependent Embeddings for Temporal Abstraction. In *Structure & Priors in Reinforcement Learning* at ICLR 2019.

William F. Whitney and Rob Fergus. Understanding the Asymptotic Performance of Model-Based RL Methods. 2018.

William F. Whitney and Rob Fergus. Disentangling video with independent prediction. In *Learning Disentangled Representations: from Perception to Control* at NIPS'17. 2017.

Mikael Henaff, William F. Whitney, and Yann LeCun. Model-Based Planning with Discrete and Continuous Actions. *arXiv preprint arXiv:1705.07177*, 2017.

Vlad Firoiu, William F. Whitney, and Joshua B. Tenenbaum. Beating the world's best at Super Smash Bros. with deep reinforcement learning. *arXiv preprint arXiv:1702.06230*, 2017.

William F. Whitney. Disentangled Representations in Neural Models. Master's thesis, Massachusetts Institute of Technology, 2016.

William F. Whitney, Michael Chang, Tejas Kulkarni, and Joshua B. Tenenbaum. Understanding visual concepts with continuation learning. In *International Conference on Learning Representations, Workshop Track*, 2016.

Tejas D. Kulkarni*, William F. Whitney*, Pushmeet Kohli, and Joshua B. Tenenbaum. Deep convolutional inverse graphics network. In *Advances in Neural Information Processing Systems*, pages 2539–2547, 2015.
Spotlight presentation given by William Whitney. *Equal contribution.

projects

*Hydrogen*, a tool for interactive programming in the Atom editor.

Downloaded >1,500,000 times and featured by the Atom team for five years.

Inspired the data science tools in Visual Studio Code.

service

TA for Mathematics of Deep Learning with Joan Bruna at NYU, Spring 2020.

Instructor for a "parallel curriculum" on reinforcement learning.

Taught material building from an introduction to RL to two seminal modern works.

Reviewer for conferences and workshops:

Uncertainty in Artificial Intelligence 2020

International Conference on Learning Representations 2020

Imitation, Intent, and Interaction workshop at ICML 2019

Task-Agnostic Reinforcement Learning Workshop at ICLR 2019

Deep Generative Models for Highly Structured Data workshop at ICLR 2019

Structure and Priors in Reinforcement Learning workshop at ICLR 2019

International Conference on Machine Learning 2019

Deep Learning for the Physical Sciences workshop at NeurIPS 2017

employment

Intern, DeepMind. 2019.

Intern, Facebook AI Research. 2018.

Intern, Facebook AI Research. 2016.

Founder, Moonshot Labs. 2013 – 2014.

Y Combinator-funded company focusing on speech transcription and search on mobile.

awards

NYU McCracken Fellowship, 2016 – 2021.

MIT Patrick J. McGovern Entrepreneurship Award, 2013.