Evan Casey

ML and Deep Learning Researcher
New York, NY

evcasey.com
github.com/evancasey

Experience

Consultant – AI Reverie August 2018 - Present

- Researching and building systems for improving computer vision with synthetic data, transfer learning, and domain adaptation (both pixel-level and model-level).

Research Engineer – Cogitai May 2017 - July 2018

- Research software engineer on the robotics team working on self-supervising systems for visual perception and manipulation under the supervision of Satinder Singh and Peter Stone.
- Developed large sections of Cogitai's machine learning and robotics libraries. Implemented, and productionized various RL algorithms (A2C, PPO, DQN, SAC) within a large scale learning system.
- Led the engineering effort on an action-conditional world model that learns from unlabeled sensory experiences. Used the learned features to perform diverse tasks on physical robots.

Sabbatical – Recurse Center March 2016 - June 2016

- 3-month sabbatical of self-directed research in deep learning and reinforcement learning. Read lots of papers, implemented some of them.

Date Engineer – Tapad (acquired by Telenor in Feb. 2016) May 2014 - March 2016

- Built and maintained large-scale (100TB+) Hadoop pipelines powering a graph-based representation of device ownership that uses a probabilistic model to infer relationships.
- Led development of Tapad's ad inventory forecasting system, which ingests billion of records daily in Elasticsearch. Researched and implemented algorithms for large-scale audience clustering.
- Backend development on a realtime ad buying platform. Low latency (95th percentile response time around 25ms), high throughput (peaking above 750k QPS).

Engineering Intern – One Kings Lane Summer 2013

- Built a product recommendation service based on multi-armed bandits and contributed to Babar, an A/B testing framework using Ruby on Rails.

Publications

Conference Papers

Thinking Between the Lines: Guided 2D Animation with Generative Adversarial Networks 2018
Evan Casey, Harry Teitelman
Accepted as Poster at NIPS Workshop on Machine Learning for Creativity and Design

Undergraduate Thesis

Scalable Collaborative Filtering Recommendation Algorithms on Apache Spark 2014
Evan Casey, Deanna Needell
Outstanding Thesis in Mathematics and Computer Science

Teaching and Talks

Workshop | AI Atelier June 2018
Applied Deep Learning with Tensorflow

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Applied Deep Learning with Tensorflow

Talk | New York Times Research November 2016
Deep Reinforcement Learning with Policy Optimization

Workshop | Recurse Center June 2016
Introduction to Neural Networks with Tensorflow

Talk | HackNY Masters Series October 2015
Scalable Machine Learning with Apache Spark

Teaching Assistant | Claremont McKenna College Spring 2012
MATH 152: Statistical Inference

Education

B.A. Mathematics, Economics, minor in Computer Science
Claremont McKenna College 2010–2014

- Selected coursework: Machine Learning, Real Analysis, Complex Analysis, Probability Theory, Statistical Inference, Differential Equations, Discrete Mathematics, Data Structures & Algorithms

Achievements

HackNY Fellowship – Summer internship program 2014

Finalist – Greylock Hackfest 2013

Janet Myhre & Leon Hollerman Scholarship 2010 - 2014

Other

Outside of machine learning research, I am a skateboarder and visual artist. In high school, I raised $875,000 in grant money for a skate park in my hometown and once lived in Mongolia for a summer.