

Evan Casey

Machine learning and visual art
Brooklyn, NY

evcasey.com
github.com/evancasey

Experience

Co-founder, CTO – Cadmium

Feb 2019 - Present

- Founded a ML-assisted creative tool company that provides auto-complete capabilities for hand-drawn animation. Used by 1K+ animators at studios such as Netflix, Buck, Titmouse, etc.
- Led research and implementation of several iterations of our visual correspondence model that resulted in two publications (NeurIPS Creativity Workshop, ICCV).
- Hired and led an interdisciplinary team of consisting of ML researchers, designers, graphics engineers, and artists.

ML Research – Genentech

Jan 2021 - Present

- Disease progression modeling for Alzheimer's using data from various modalities (MRI, PET, clinical, biometric) with contrastive learning.

ML Research – Cogitai (now Sony AI Lab)

May 2017 - July 2018

- Robot learning and self-supervising systems for visual perception and manipulation under the supervision of Satinder Singh and Peter Stone.
- Built an action-conditional world model that learns from unlabeled sensory experiences. Used the learned features to perform diverse tasks on physical robots.
- 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.

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).

Publications

CONFERENCE PAPERS

The Animation Transformer: Visual Correspondence via Segment Matching 2021
Evan Casey, Victor Perez, Zhuoru Li, Harry Teitelman, Nick Boyajian, Tim Pulver, Mike Manh, William Grisaitis
 International Conference on Computer Vision

Thinking Between the Lines: Guided 2D Animation with Generative Adversarial Networks 2018
Evan Casey, Harry Teitelman
 NeurIPS 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

Talk | ML Collective (Lab) June 2021
 ML-assisted creative tools for animation

Workshop | AI Atelier May, June 2018
 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 lived in Mongolia for 3 months in 2012.