

ALEXANDER LI

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EDUCATION

Carnegie Mellon University

August 2020 - present

Ph.D. in Machine Learning

- Research focus: learning from Internet-scale data, generative models, deep learning generalization.
- Advised by Prof. Deepak Pathak
- Close collaborators: Prof. Alexei Efros

University of California, Berkeley

August 2016 - May 2020

B.S., M.S. in Electrical Engineering and Computer Science

GPA: 4.00/4.00, Graduated with Highest Honors

- Research focus: deep reinforcement learning, particularly hierarchical and multi-task algorithms.
- Advised by Prof. Pieter Abbeel and Lerrel Pinto

HONORS/AWARDS

Two Sigma PhD Fellowship Runner-Up (2nd place out of 160 nominees)	2023
Stability AI Compute Grant	2023
National Science Foundation Graduate Research Fellowship	2020
1st place, Citadel San Francisco Invitational Data Open	2019
Mark D. Weiser Excellence in Computing Scholarship	2019
Quantedge Award for Academic Excellence	2019
Accel Scholar	2018
UC Berkeley Alumni Association Leadership Award	2017
Edward Kraft Award for Freshmen	2016
UC Berkeley Regents' and Chancellor's Scholar (top < 2% of incoming students)	2016

WORK EXPERIENCE

Meta AI Research

June 2023 - Jan 2024

Research Scientist Intern

San Francisco, CA

- Worked with Xinlei Chen
- Research focus: representation learning, Transformers

Stanford Artificial Intelligence Lab

June 2022 - Sep 2022

Visiting Researcher

Stanford, CA

- Worked with Ananya Kumar and Prof. Tengyu Ma
- Research focus: improving self-supervised representation learning for OOD generalization

Machine Learning at Berkeley

Aug 2017 - May 2018

Project Manager, AutoQuad

Berkeley, CA

- Led team of six members to improve long-term route planning for autonomous quadcopters.
- Designed computer vision and reinforcement learning algorithms to train drones to reach goals.

Machine Learning Engineer, Wish Inc.

Berkeley, CA

- Developed computer vision algorithms to score user-uploaded images at production-level timescales.

PUBLICATIONS AND PREPRINTS

On the Effectiveness of Attention Transfer for Vision Transformers

Alexander Li, Yuandong Tian, Beidi Chen, Deepak Pathak, Xinlei Chen

In submission

Diffusion-TTA: Test-time Adaptation of Discriminative Models via Generative Feedback

Mihir Prabhudesai*, Tsung-Wei Ke*, **Alexander Li**, Deepak Pathak, Katerina Fragkiadaki

Neural Information Processing Systems (NeurIPS) 2023

Your Diffusion Model is Secretly a Zero-Shot Classifier

Alexander Li, Mihir Prabhudesai, Shivam Duggal, Ellis Brown, Deepak Pathak

International Conference on Computer Vision (ICCV) 2023

Internet Explorer: Targeted Representation Learning on the Open Web

Alexander Li*, Ellis Brown*, Alexei A. Efros, Deepak Pathak

International Conference on Machine Learning (ICML) 2023

Understanding Collapse in Non-Contrastive Siamese Representation Learning

Alexander Li, Alexei A. Efros, Deepak Pathak

European Conference on Computer Vision (ECCV) 2022

Functional Regularization for Reinforcement Learning via Learned Fourier Features

Alexander Li, Deepak Pathak

Neural Information Processing Systems (NeurIPS) 2021

Generalized Hindsight for Reinforcement Learning

Alexander Li, Lerrel Pinto, Pieter Abbeel

Neural Information Processing Systems (NeurIPS) 2020

Sub-policy Adaptation for Hierarchical Reinforcement Learning

Alexander Li*, Carlos Florensa*, Ignasi Clavera, Pieter Abbeel

International Conference on Learning Representations (ICLR) 2020

Sunspot Rotation and the M-Class Flare in Solar Active Region NOAA 11158

Alexander Li, Yang Liu

Solar Physics 2015

TEACHING

Teaching Assistant

Carnegie Mellon 16-884: Deep Learning for Robotics

Fall 2022

Carnegie Mellon 10-708: Deep Reinforcement Learning

Fall 2021

Berkeley CS 294-158: Deep Unsupervised Learning

Spring 2020

Berkeley EECS 126: Probability and Random Processes

Fall 2019

Berkeley CS 188: Artificial Intelligence

Fall 2018, Spring 2019

Academic Intern

Berkeley CS 189: Machine Learning

Spring 2018

Reader

Berkeley CS 70: Discrete Mathematics and Probability Theory

Fall 2017

PROFESSIONAL SERVICE

Reviewer:

International Conference on Machine Learning (ICML)

2021, 2022, 2023, 2024

Conference on Neural Information Processing Systems (NeurIPS; top reviewer in 2023)

2022, 2023

TECHNICAL STRENGTHS

PyTorch, JAX, NumPy

COURSEWORK

Carnegie Mellon University

Selected graduate coursework: Computer Vision (A+), Convex Optimization (A+), Probabilistic Graphical Models (A+), Computational Game Solving (A)

University of California, Berkeley

Selected graduate coursework: Computer Vision (A+), Deep Reinforcement Learning (A), Deep Unsupervised Learning (A+), Theoretical Statistics (A), NLP (S), ML for Biology (S)

Selected undergraduate coursework: Machine Learning (A+), Artificial Intelligence (A+), Algorithms (A+), Probability/Stochastic Processes (A+), Convex Optimization (A+), Operating Systems (A), Internet Architecture (A+)