

Michael Zhang

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EDUCATION

- University of Toronto** *2018 - Present*
Doctor of Philosophy, Computer Science
Advised by Professor Jimmy Ba
- University of California, Berkeley** *2017 - 2018*
Master of Science, Electrical Engineering and Computer Science GPA: 4.000
Advised by Professor Pieter Abbeel
- University of California, Berkeley** *2014 - 2017*
Bachelor of Arts, Computer Science GPA: 4.000
Graduated with Highest Honors (top 3% of class)

RESEARCH AND INDUSTRY EXPERIENCE

- Vector Institute** 2018 - Present
Student Researcher *Toronto, Ontario*
- Research on deep learning and reinforcement learning.
- Google** Feb 2020 - June 2020
Research Intern *Toronto, Ontario*
- Research on offline reinforcement learning advised by Mohammad Norouzi.
- NextAI** 2019
Scientist in Residence *Toronto, Ontario*
- Provide scientific and technical support to start-ups selected in NextAI accelerator.
- LinkedIn** Summer 2018
Software Engineer Intern *Dublin, Ireland*
- Built natural language models to understand what members write about on LinkedIn.
- Berkeley Artificial Intelligence Research** 2016 - 2018
Student Researcher *Berkeley, California*
- Develop reinforcement learning algorithms for training real-world robots, object tracking, and solving sparse reward tasks.
- Workday** Summer 2016
Data Science Intern *Pleasanton, California*
- Model and predict problems that may occur for companies going live on the platform.

PUBLICATIONS

Learning Domain Invariant Representations in Goal-conditioned Block MDPs
Beining Han, Chongyi Zheng, Harris Chang, Keiran Paster, Michael R. Zhang, Jimmy Ba
Neural Information Processing Systems (NeurIPS) 2021

Analyzing Monotonic Linear Interpolation in Neural Network Loss Landscapes
James Lucas, Juhan Bae, Michael R. Zhang, Stanislav Fort, Richard Zemel, Roger Grosse
International Conference on Machine Learning (ICML) 2021

Autoregressive Models for Offline Reinforcement Learning
Michael R. Zhang, Tom Le Paine, Ofir Nachum, Cosmin Paduraru, George Tucker, Ziyu Wang,

Mohammad Norouzi

International Conference on Learning Representations (ICLR) 2021

Benchmarks for Deep Off-Policy Evaluation

Justin Fu, Mohammad Norouzi, Ofir Nachum, George Tucker, Ziyu Wang, Alexander Novikov, Mengjiao Yang, Michael R. Zhang, Yutian Chen, Aviral Kumar, Cosmin Paduraru, Sergey Levine, Tom Le Paine
International Conference on Learning Representations (ICLR) 2021

Objective Social Choice: Using Auxiliary Information to Improve Voting Outcomes

Silviu Pitis, Michael R. Zhang

International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS) 2020

Lookahead Optimizer: k steps forward, 1 step back

Michael R. Zhang, James Lucas, Geoffrey Hinton, Jimmy Ba

Neural Information Processing Systems (NeurIPS) 2019

Reverse Curriculum Generation for Reinforcement Learning

Carlos Florensa, David Held, Markus Wulfmeier, Michael Zhang, Pieter Abbeel

Conference on Robot Learning (CoRL) 2017

Probabilistically Safe Policy Transfer

David Held, Zoe McCarthy, Michael Zhang, Fred Shentu, Pieter Abbeel.

IEEE International Conference on Robotics and Automation (ICRA) 2017

SELECTED HONORS

NSERC Canada Graduate Scholarship - Doctoral, 2021-2024

National Science Foundation Graduate Research Fellowship, 2018 (respectfully declined)

Siebel Scholar, 2018

National award to 90 graduate students for outstanding academic performance and leadership

UC Berkeley Outstanding Graduate Student Instructor Award, 2017

Award given to the top 10% of teaching assistants based on faculty nominations and reviews

UC Berkeley Leadership Award

Merit-based scholarship for leadership impacting academic, work, and community

TEACHING

University of Toronto CSC311: Introduction to Machine Learning: Fall 2021 (head TA)

University of Toronto CSC2547: Introduction to Reinforcement Learning: Winter 2020

Vector Institute: Deep Learning Applications: Fall 2020

University of Toronto CSC421/2516: Neural Networks and Deep Learning: Winter 2019

University of Toronto CSC2541: Deep Reinforcement Learning: Fall 2018

UC Berkeley CS170: Introduction to Algorithms: Spring 2018

UC Berkeley CS189: Introduction to Machine Learning: Spring 2017, Fall 2017

UC Berkeley CS70: Discrete Mathematics and Probability: Spring 2016, Fall 2016

LEADERSHIP AND SERVICE

Conference reviewing ICLR (2020,2021), ICML 2020, Neurips 2021

Toronto CS Graduate Application Assistance Program 2021

Organized program to provide application review, targeting those from underrepresented groups

Self-Organizing Conference on Machine Learning November 2019

Led breakout session on deep learning and social chair

Her Code Camp Volunteer September 2019

Robot Learning Lab Outreach	2017 - 2018
Coordinate lab outreach program to provide tours and robot demo to visitors of various ages	
Berkeley AI & AI4All Camp Volunteer	June 2017
Machine Learning at Berkeley	2017
Led technical consulting project to delight images with Unity Technologies	
Computer Science Mentors	2016
Develop materials and led small group tutoring sessions	

INVITED TALKS

Toronto Machine Learning Society Conference	November 2019
AI Squared Forum	September 2019
Google Brain	August 2019
Vector Endless Summer School (Optimization)	February 2019