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Marvin Zhang

Education

University of California, Berkeley
Ph.D., Computer Science, August 2016 - December 2021.
Advisor: Sergey Levine.
Dissertation: Adaptation Based Approaches to Distribution Shift Problems.

University of California, Berkeley
B.A., Computer Science, August 2012 - May 2016.
GPA: 4.00 (Highest Distinction).

Research

OpenAI
Member of Technical Staff, starting August 2022.
Alignment Research.

University of California, Berkeley
Graduate Student Researcher, August 2016 - December 2021.
Berkeley Artificial Intelligence Research (BAIR) Lab.

Google
Research Intern, February - May 2019.
Host: Matt Hoffman.

University of California, Berkeley
Undergraduate Researcher, January 2014 - August 2016.
UC Berkeley Robot Learning Lab (RLL).

Teaching

University of California, Berkeley
Lecturer, Spring 2022.
Introduction to Machine Learning (CS 189).
Designing, Visualizing, and Understanding Deep Neural Networks (CS 182/282A).

University of California, Berkeley
Course Instructor, Summer 2016.
Structure and Interpretation of Computer Programs (CS 61A).

University of California, Berkeley
Teaching Assistant, Spring 2014[*], Fall 2014[*], Spring 2015[*], Fall 2015[†], Spring 2016[‡].
[*]Structure and Interpretation of Computer Programs (CS 61A).
[†]Introduction to Artificial Intelligence (CS 188).
[‡]Introduction to Machine Learning (CS 189/289A).

Publications

Marvin Zhang, Sergey Levine, Chelsea Finn.
MEMO: Test Time Robustness via Adaptation and Augmentation.
Under review. arXiv 2110.09506.

Marvin Zhang*, Henrik Marklund*, Nikita Dhawan*, Abhishek Gupta, Sergey Levine, Chelsea Finn.
Adaptive Risk Minimization: Learning to Adapt to Domain Shift.
NeurIPS, 2021. arXiv 2007.02931.

Pang Wei Koh*, Shiori Sagawa*, Henrik Marklund, Sang Michael Xie, **Marvin Zhang** *et al.*
WILDS: A Benchmark of in-the-Wild Distribution Shifts.
ICML, 2021. arXiv 2012.07421.

Laura Smith, Nikita Dhawan, **Marvin Zhang**, Pieter Abbeel, Sergey Levine.
AVID: Learning Multi-Stage Tasks via Pixel-Level Translation of Human Videos.
RSS, 2020. arXiv 1912.04443.

Michael Janner, Justin Fu, **Marvin Zhang**, Sergey Levine.
When to Trust Your Model: Model-Based Policy Optimization.
NeurIPS, 2019. arXiv 1906.08253.

Marvin Zhang*, Sharad Vikram*, Laura Smith, Pieter Abbeel, Matthew Johnson, Sergey Levine.
SOLAR: Deep Structured Latent Representations for Model-Based Reinforcement Learning.
ICML, 2019. arXiv 1808.09105.

Yevgen Chebotar*, Karol Hausman*, **Marvin Zhang***, Gaurav Sukhatme, Stefan Schaal, Sergey Levine.
Combining Model-Based and Model-Free Updates for Trajectory-Centric Reinforcement Learning.
ICML, 2017. **Best paper award**, RSS Workshop on New Frontiers for Deep Learning in Robotics, 2017.
arXiv 1703.03078.

Marvin Zhang*, Xinyang Geng*, Jonathan Bruce*, Ken Caluwaerts, Massimo Vespignani,
Vytas SunSpiral, Pieter Abbeel, Sergey Levine.
Deep Reinforcement Learning for Tensegrity Robot Locomotion.
ICRA, 2017. arXiv 1609.09049.

Marvin Zhang, Zoe McCarthy, Chelsea Finn, Sergey Levine, Pieter Abbeel.
Learning Deep Neural Network Policies with Continuous Memory States.
ICRA, 2016. **Contributed talk**, NIPS Reasoning, Attention, Memory Workshop, 2015. arXiv 1507.01273.

Awards and Fellowships

UC Berkeley Outstanding Graduate Student Instructor Award, 2016, 2022.
NDSEG Fellowship, September 2017 - August 2021.
Neural Information Processing Systems (NeurIPS) Top Reviewer, 2019, 2021.
International Conference on Machine Learning (ICML) Top Reviewer, 2020.
NSF Graduate Research Fellowship, Declined April 2017.
UC Berkeley EECS Departmental Fellowship, August - December 2016.
UC Berkeley EECS Honors Degree Program, August 2014 - May 2016.
UC Berkeley EECS Warren Dere Design Award, April 2016.
CRA Outstanding Undergraduate Researcher Honorable Mention, December 2015.

Teaching Projects

Brian Hou, **Marvin Zhang**, John DeNero.
Yelp Maps: A Restaurant Recommendation Engine.
SIGCSE Nifty Assignments, 2016.
`http://nifty.stanford.edu/2016/hou-zhang-denero-yelp-maps/`

Other Experience

University of California, Berkeley
Research Experience for Undergraduates (REU) Organizer, December 2020 - October 2021.
Berkeley Artificial Intelligence Research (BAIR) Lab.
`https://bair.berkeley.edu/reu.html`

Outreach Coordinator, September 2016 - August 2018.
UC Berkeley Robot Learning Lab (RLL).
`https://rll.berkeley.edu/outreach/`

Prism Skylabs
Engineering Intern, May - August 2013.
Mentors: Doug Johnston and Michael Fogel.