JEFFREY O. ZHANG

(510)709-8973 ⋄ jozhang@berkeley.edu
jozhang97.github.io ⋄ github.com/jozhang97

EDUCATION

University of California, Berkeley *May 2019*
B.S. in Electrical Engineering and Computer Science
GPA: 3.88/4.0

PUBLICATIONS

[1] *Side-tuning: Network Adaptation via Additive Side Networks.* **Jeffrey O Zhang***, Alexander Sax*, Amir Zamir, Silvio Savarese, Leonidas Guibas, Jitendra Malik. [In Submission]

[2] *Learning to Navigate Using Mid-Level Visual Priors.* Alexander Sax, **Jeffrey O Zhang**, Bradley Emi, Amir Zamir, Silvio Savarese, Leonidas Guibas, Jitendra Malik. In CoRL 2019.

[3] *Mid-Level Visual Representation.* Alexander Sax, **Jeffrey O Zhang**, Bradley Emi, Amir Zamir, Silvio Savarese, Leonidas Guibas, Jitendra Malik. In Baylearn 2019 (Oral).

[4] *Mid-Level Vision at Habitat Challenge.* **Jeffrey O Zhang***, Alexander Sax*, Bradley Emi, Amir Zamir, Silvio Savarese, Leonidas Guibas, Jitendra Malik. **Winner** of CVPR 2019 Habitat Challenge.

[5] *Modular Architecture for StarCraft II with Deep Reinforcement Learning.* Dennis Lee*, Haoran Tang*, **Jeffrey O Zhang**, Huazhe Xu, Trevor Darrell, Pieter Abbeel. In AIIDE 2018.

EMPLOYMENT

UC Berkeley May 2019 - Present
Research Engineer

· [Advised by Jitendra Malik, Amir Zamir]
· Worked on *computer vision*, *robotics* and *lifelong learning*. Interested in how to inject priors about the world into our deep learning systems.
· Developed embarrassingly simple and asymptotically consistent additive technique for lifelong learning
· Introduced Taskonomy as a dataset and rigidity as an evaluation metric for lifelong learning
· Distilled models trained for Taskonomy tasks to make compute feasible for finetuning baseline
· Leveraged visual priors (e.g. semantic segmentation) for navigation tasks using simple state space transform
· Trained agents for multiple robot navigation tasks, including point-goal navigation, visual exploration, and object visual navigation

UC Berkeley Sep. 2017 - Jun. 2018
Undergraduate Researcher

· [Advised by Trevor Darrell, Pieter Abbeel]
· Learned *reinforcement learning* (RL). Interested in tackling difficult problems using RL.
· Developed full semi-learned agent to play StarCraft II competitively
· Utilized self play with curriculum training, modular architecture and state-of-the-art reinforcement learning techniques
· Developed and maintained code base consisting of asynchronous, hierarchically structured RL methods

University of Auckland Jul. - Dec. 2018
Visiting Researcher

- [Advised by Alexei Drummond]
- Studied computational biology, specifically *phylogenetics*. Interested in understanding how different models of evolution affect different ancestral state reconstructions.
- Utilized stochastic character mapping to sample phylogenetic trees in a computationally efficient way
- Implemented, validated, and tested recently described algorithm for stochastic mapping of evolutionary trajectories

LiveRamp Jun. - Aug. 2017
Software Engineering Intern

- Developed Webhook framework to allow programmatic interactions with our products to reduce the number of incoming API calls
- Led new initiative to incorporate AI into privacy approval and created free-text classifier
- Updated UI for new features using React and Redux

SAP May - Aug. 2016
Software Developer Intern

- Designed backend for Internet of Things management product in Java and SQL
- Researched partners' APIs and wrote tools to sync and edit partner data
- Implemented generic REST framework to integrate our solutions with our partners

TECHNICAL SKILLS

Python, PyTorch, Tensorflow, Latex, Linux, Bash, SQL, Java, Swift, Ruby, Javascript

SELECTED PROJECTS

Berkeley Roommate Network

- The Berkeley Roommate Network project's goal is to help incoming students transition to university more comfortably by finding roommates that each student's profile.
- We interviewed college students to understand what people were looking for in a roommate. We built a roommate search network on Facebook used by over 2000 incoming Berkeley students and developed a roommate compatibility algorithm to match students.

Flick-It

- Flick-It is an easy-to-learn iOS game in which the user gets points for flicking shapes into bins.
- I used Swift to develop an intuitive game flow and game mechanics, including collisions and object spawning. Download the game here!

COURSEWORK

AI/ML	Computer Vision, Machine Learning, Deep Learning
Math	Probability Theory and Stochastic Processes, Discrete Mathematics, Real Analysis, Linear Algebra, Optimization Models
Algorithms	Efficient Algorithms and Intractable Problems, Computability and Complexity, Quantum Computation, Data Structures
Systems	Operating Systems, Machine Structure, Information Devices and Systems

Last Updated: November 25, 2019