

Jay Whang

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EDUCATION	University of Texas at Austin , Austin, TX – Ph.D. in Computer Science Stanford University , Stanford, CA – M.S. in Computer Science University of Southern California , Los Angeles, CA – B.S. in Computer Science, B.A. in Mathematics	2019 – Present 2017 – 2019 2010 – 2014
RESEARCH INTERESTS	My research interests lie broadly in deep generative modeling with the goal of enabling it to work well in practice. In particular, I'm interested in using likelihood-based models to perform useful downstream tasks such as compression and image enhancement .	
CONFERENCE PAPERS	<ol style="list-style-type: none">[1] Composing Normalizing Flows for Inverse Problems (pdf). Jay Whang, Erik Lindgren, Alexandros Dimakis. <i>ICML 2021</i>.[2] Solving Inverse Problems with a Flow-based Noise Model (pdf). Jay Whang, Qi Lei, Alexandros Dimakis. <i>ICML 2021</i>.[3] Training Variational Autoencoders with Buffered Stochastic Variational Inference (pdf). Rui Shu, Hung Bui, Jay Whang, Stefano Ermon. <i>AISTATS 2019</i>.	
PREPRINTS & WORKSHOP PAPERS	<ol style="list-style-type: none">[4] Neural Distributed Source Coding (pdf). Jay Whang, Anish Acharya, Hyeji Kim, Alexandros Dimakis. <i>Preprint</i>.[5] Approximate Probabilistic Inference with Composed Flows (pdf). Jay Whang, Erik Lindgren, Alexandros Dimakis. – <i>Best Paper Award at UAI 2021 Workshop on Tractable Probabilistic Modeling</i>. – <i>NeurIPS 2020 Workshop on Deep Learning and Inverse Problems</i>.[6] Compressed Sensing with Invertible Generative Models and Dependent Noise (pdf). Jay Whang, Qi Lei, Alexandros G. Dimakis. – <i>NeurIPS 2020 Workshop on Deep Learning and Inverse Problems</i>.[7] Fast Exploration with Simplified Models and Approximately Optimistic Planning in Model Based Reinforcement Learning (pdf). Ramtin Keramati*, Jay Whang*, Patrick Cho* and Emma Brunskill. <i>Preprint</i>.[8] Strategic Exploration in Object-Oriented Reinforcement Learning (pdf). Ramtin Keramati*, Jay Whang*, Patrick Cho* and Emma Brunskill. – <i>ICML 2018 Workshop on Exploration in Reinforcement Learning</i>.	
WORK EXPERIENCE	Google Research , Mountain View, CA – <i>Research Intern</i> – Investigating ways use deep generative modeling for image enhancement. DeepMind , Mountain View, CA – <i>Research Engineer Intern</i> – Investigated ways to improve sampling and training speed of WaveNet with progressive training. YouTube , Mountain View, CA – <i>Software Engineer</i> – Trained and productionized various classifiers for detecting abusive videos and users. – Wrote a real-time data processing backend pipeline for aggregating user activities on YouTube. Facebook , Menlo Park, CA – <i>Software Engineer Intern</i> – Designed and implemented a physics-based layout engine for contextual dialog boxes in JavaScript. Microsoft , Redmond, WA – <i>Software Development Engineer (SDE) Intern</i> – Created a web UI for remote configuration and deployment of Windows 8 on bare metal machines. Microsoft , Redmond, WA – <i>Software Development Engineer in Test (SDET) Intern</i> – Designed and implemented functional and stress tests for a cluster manager on Windows HPC.	Summer 2021 Summer 2018 Dec. 2014 – July 2017 Summer 2014 Summer 2012 Summer 2011

TEACHING	Stanford University	
	– CS 234: Reinforcement Learning by Prof. Emma Brunskill	Winter 2018
	– CS 230: Deep Learning by Prof. Andrew Ng	Spring & Fall 2018, Spring 2019
	– CS 224N: NLP with Deep Learning by Prof. Richard Socher	Winter 2017
	– CS 148: Computer Graphics by Prof. Ron Fedkiw	Fall 2017
	University of Southern California	
	– CSCI 103: Introduction to Programming by Prof. Mark Redekopp	Fall 2013
	– CSCI 271: Discrete Mathematics by Prof. David Kempe	Spring 2013
SERVICE	Reviewer for ICML 2020/2021, NeurIPS 2020/2021, JSAIT 2020, COLT 2020, MLSys 2021	
AWARDS	Member of Phi Beta Kappa National Honor Society	2013 – Present
	Three-time USA Mathematics Olympiad (USAMO) qualifier	2007 – 2009
	Mathematical Olympiad Summer Program (MOSP) participant	2007
SKILLS	<p>ML Frameworks: Proficient in PyTorch, TensorFlow, and scientific packages (e.g. <code>numpy</code>, <code>cvxpy</code>).</p> <p>Languages: Proficient in Python & C++. Experienced in C, JavaScript, shell scripting, and Java.</p> <p>Spoken Languages: English (fluent), Korean (native).</p>	