

Education	<b>California Institute of Technology (Caltech)</b> Ph.D. in Computation & Neural Systems Pasadena, CA	2014 – 2021
	<b>University of Minnesota, Twin Cities</b> B.S. in Physics, Minor in Computer Science Minneapolis, MN	2010 – 2014 High Distinction
Work Experience	<b>DeepMind</b> London, UK	Research Scientist October 2021 – Present
	<b>Disney Research</b> Pittsburgh, PA	R&D Lab Associate (Intern) March 2017 – June 2017
Preprints	<b>Insights from Generative Modeling for Neural Video Compression</b> Ruihan Yang, Yibo Yang, <b>Joseph Marino</b> , Stephan Mandt <i>arXiv: 2107.13136</i>	2021
	<b>Beyond Target Networks: Improving Deep Q-Learning with FR</b> Alexandre Piché, <b>Joseph Marino</b> , Gian Maria Marconi, Chris Pal, Mohammad Emtiyaz Khan <i>arXiv: 2106.02613</i>	2021
Conference Publications	<b>Iterative Amortized Policy Optimization</b> <b>Joseph Marino</b> , Alexandre Piché, Alessandro Davide Ialongo, Yisong Yue <i>Neural Information Processing Systems (NeurIPS)</i>	2021
	<b>Hierarchical Autoregressive Modeling for Neural Video Compression</b> Ruihan Yang, Yibo Yang, <b>Joseph Marino</b> , Stephan Mandt <i>International Conference on Learning Representations (ICLR)</i>	2021
	<b>VAEs with Jointly Optimized Latent Dependency Structure</b> Jiawei He, Yu Gong, <b>Joseph Marino</b> , Greg Mori, Andreas Lehrmann <i>International Conference on Learning Representations (ICLR)</i>	2019
	<b>A General Method for Amortizing Variational Filtering</b> <b>Joseph Marino</b> , Milan Cvitkovic, Yisong Yue <i>Neural Information Processing Systems (NeurIPS)</i>	2018
	<b>Probabilistic Video Generation using Holistic Attribute Control</b> Jiawei He, Andreas Lehrmann, <b>Joseph Marino</b> , Greg Mori, Leonid Sigal <i>European Conference on Computer Vision (ECCV)</i>	2018
	<b>Iterative Amortized Inference</b> <b>Joseph Marino</b> , Yisong Yue, Stephan Mandt <i>International Conference on Machine Learning (ICML)</i>	2018
	<b>Predictive Coding, Variational Autoencoders, and Biological Connections</b> <b>Joseph Marino</b> <i>Neural Computation</i>	2021

<b>Selected Workshop Publications</b>	<b>Scale Space Flow with Autoregressive Priors</b> Ruihan Yang, Yibo Yang, <b>Joseph Marino</b> , Stephan Mandt <i>ICLR 2021 Workshop on Neural Compression</i>	2021
	<b>Sequential Autoregressive Flow-Based Policies</b> Alex Guerra, <b>Joseph Marino</b> <i>ICML INNF Workshop</i>	2020
	<b>Improving Sequential Latent Variable Models with Autoregressive Flows</b> <b>Joseph Marino</b> , Lei Chen, Jiawei He, Stephan Mandt <i>Advances in Approximate Bayesian Inference (AABI)</i>	2019
	<b>On the Design of Variational RL Algorithms</b> <b>Joseph Marino</b> , Alexandre Piché, Yisong Yue <i>NeurIPS Deep Reinforcement Learning Workshop</i>	2019
	<b>An Inference Perspective on Model-Based Reinforcement Learning</b> <b>Joseph Marino</b> , Yisong Yue <i>ICML Workshop on Generative Modeling &amp; Model-Based Reasoning</i>	2019
<b>Thesis</b>	<b>Learned Feedback &amp; Feedforward Perception &amp; Control</b> <b>Joseph Marino</b> <i>Ph.D. Thesis</i>	2021
<b>Teaching</b>	CNS 187 - Neural Computation (Teaching Assistant, Guest Lecturer) <i>Lectures: Convolutional Neural Networks, Biological Inspiration</i>	2015 – 2016
	CS 155 - Machine Learning & Data Mining (Guest Lecturer) <i>Lectures: Intro. to Deep Learning, CNNs &amp; RNNs, Deep Generative Models</i>	2017 – 2020
	Theory of Biological Computation (Guest Lecturer) <i>Lectures: Predictive Coding</i>	2018
	CS 159 - Special Topics in Machine Learning (Teaching Assistant, Lecturer) <i>Lectures: Intro. to Deep Generative Models, Latent Variable Models, Amortized Optimization, Model-Based RL</i>	2019 – 2021
	CS 259 - [ @ UC Irvine ] Deep Generative Models (Guest Lecturer) <i>Lectures: Deep Sequential Latent Variable Models</i>	2019 – 2020
<b>Relevant Coursework</b>	<b>Machine Learning:</b> Introduction to Data Mining, Mathematical Modeling, Learning Systems, Neural Computation, Machine Learning and Data Mining, Advanced Topics in Machine Learning, CIFAR Deep Learning/Reinforcement Learning Summer School 2016 & 2017	
	<b>Neuroscience:</b> Introduction to Neuroscience, Introduction to Computation and Neural Systems, Brain Circuits, Topics in Systems Neuroscience, Introduction to Vision, Principles of Neuroscience, Theory of Biological Computation	
<b>Reviewing</b>	ICLR, NeurIPS, ICML, CVPR, ICCV, ECCV	
<b>Awards</b>	NSF GRFP Honorable Mention	2016
	Kunzel Fellowship, Caltech	2014 – 2017
	Dean's List, University of Minnesota	2010 – 2014
	Summer Undergraduate Research Fellowship, Caltech	2013
	Eagle Scout Award, Boy Scouts of America	2010