Joseph L. Marino

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Education	**California Institute of Technology (Caltech)** Ph.D. in Computation and Neural Systems	2014 - 2021
	University of Minnesota, Twin Cities B.S. in Physics, Minor in Computer Science	2010 - 2014 High Distinction
Work Experience	**DeepMind** London, UK	Research Scientist October 2021 - Present
	Disney Research Pittsburgh, PA	R&D Lab Associate (Intern) March 2017 - June 2017

Publications

Learned Feedback & Feedfoward Perception & Control   2021
Joseph Marino
Ph.D. Thesis

Beyond Target Networks: Improving Deep Q-Learning with FR   2021
Alexandre Piché, **Joseph Marino**, Gian Maria Marconi, Chris Pal, Mohammad Emtiyaz Khan
arXiv

Hierarchical Autoregressive Modeling for Neural Video Compression   2021
Ruihan Yang, Yibo Yang, **Joseph Marino**, Stephan Mandt
International Conference on Learning Representations (ICLR)

Iterative Amortized Policy Optimization   2020
Joseph Marino, Alexandre Piché, Alessandro Davide Ialongo, Yisong Yue
arXiv

Sequential Autoregressive Flow-Based Policies   2020
Alex Guerra, **Joseph Marino**
ICML INNF Workshop

Improving Sequential Latent Variable Models with Autoregressive Flows   2019
Joseph Marino, Lei Chen, Jiawei He, Stephan Mandt
Advances in Approximate Bayesian Inference (AABI)

Predictive Coding, Variational Autoencoders, and Biological Connections   2019
Joseph Marino
NeurIPS Workshop on Real Neurons & Hidden Units

On the Design of Variational RL Algorithms   2019
Joseph Marino, Alexandre Piche, Yisong Yue
NeurIPS Deep Reinforcement Learning Workshop

An Inference Perspective on Model-Based Reinforcement Learning   2019
Joseph Marino, Yisong Yue
ICML Workshop on Generative Modeling & Model-Based Reasoning

VAEs with Jointly Optimized Latent Dependency Structure   2019
Jiawei He, Yu Gong, **Joseph Marino**, Greg Mori, Andreas Lehrmann
International Conference on Learning Representations (ICLR)

A General Method for Amortizing Variational Filtering 2018
Joseph Marino, Milan Cvitkovic, Yisong Yue
Neural Information Processing Systems (NeurIPS)

Probabilistic Video Generation using Holistic Attribute Control 2018
Jiawei He, Andreas Lehrmann, **Joseph Marino**, Greg Mori, Leonid Sigal
European Conference on Computer Vision (ECCV)

Iterative Amortized Inference 2018
Joseph Marino, Yisong Yue, Stephan Mandt
International Conference on Machine Learning (ICML)

Teaching	CNS 187 - Neural Computation (Teaching Assistant, Guest Lecturer)	2015 – 2016
	Lectures: Convolutional Neural Networks, Biological Inspiration	
	CS 155 - Machine Learning & Data Mining (Guest Lecturer)	2017 – 2020
	Lectures: Intro. to Deep Learning, CNNs & RNNs, Deep Generative Models	
	Theory of Biological Computation (Guest Lecturer)	2018
	Lectures: Predictive Coding	
	CS 159 - Special Topics in Machine Learning (Teaching Assistant, Lecturer)	2019 – 2021
	Lectures: Intro. to Deep Generative Models, Latent Variable Models, Amortized Optimization, Model-Based RL	
	CS 259 - [@ UC Irvine] Deep Generative Models (Guest Lecturer)	2019 – 2020
	Lectures: Deep Sequential Latent Variable Models	

Relevant Coursework

Machine Learning: 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

Neuroscience 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

Reviewing ICLR, NeurIPS, ICML, CVPR, ICCV, ECCV

Awards	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