Joseph L. Marino

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Education

California Institute of Technology 2014 - Present
Ph.D. Candidate in Computation and Neural Systems

University of Minnesota, Twin Cities 2010 - 2014
B.S. in Physics, Minor in Computer Science High Distinction

Recent Work Experience

Disney Research R&D Lab Associate (Intern)
Pittsburgh, PA March 2017 - June 2017

Publications

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

An Inference Perspective on Model-Based Reinforcement Learning 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 – 2019
Lectures: Intro. to Deep Learning, CNNs & RNNs, Deep Generative Models

Theory of Biological Computation (Guest Lecturer) 2018
Lectures: Predictive Coding

CS 159 - Deep Probabilistic Models (Teaching Assistant, Lecturer) 2019
Lectures: Intro. to Deep Generative Models, Latent Variable Models

CS 259 - [@ UC Irvine] Deep Generative Models (Guest Lecturer) 2019
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

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