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Jonathan Gordon

Research Scientist at OpenAI

EXPERIENCE

OpenAI 2020–Present
Research Scientist
Working with Kenneth O. Stanley towards Open-Ended learning processes.

Facebook AI Research Summer 2019
PhD Research Internship
Working with Diane Bouchacourt and David Lopez-Paz on symmetries in language modelling.

Microsoft Research Summer 2018
PhD Research Internship
Working with Nicolo Fusi and the AutoML group on neural architecture search.

University of Cambridge 2017-2018
Supervisions
Supervision and teaching duties for Cambridge module 3F8: Inference and Advanced ML

Ben-Gurion University 2015-2016
Teaching Assistant
Teaching assistant for undergraduate and graduate courses in machine learning.

EDUCATION

Ph.D. Machine Learning 2017-2020
University of Cambridge
Research on deep probabilistic models and scalable approximate inference algorithms.

MPhil Machine Learning - Distinction 2016-2017
University of Cambridge
Thesis: *Bayesian Semisupervised and Active Learning with Deep Generative Models.*

MSc. Applied Statistics - magna cum laude 2014-2016
Ben-Gurion University
Honors program. Thesis: *A Machine Learning Analysis of ALS.*

BSc. Engineering - magna cum laude 2011-2015
Ben-Gurion University
Focusing on information engineering, data science, and applied statistics.

PUBLICATIONS

—∘ Wessel Bruinsma, James Requeima, Andrew Y. K. Foong, **Jonathan Gordon**, and Richard E Turner. The Gaussian neural process. In *Third Symposium on Advances in Approximate Bayesian Inference (contributed talk)*, 2021

—∘ Andrew Y. K. Foong*, Wessel P. Bruinsma*, **Jonathan Gordon***, Yann Dubois, James Requeima, and Richard E. Turner. Meta-learning stationary stochastic process prediction with Convolutional Neural Processes. In *Advances in Neural Information Processing Systems*, 2020

—∘ Eric Nalisnick, **Jonathan Gordon**, and José Miguel Hernández-Lobato. Predictive complexity priors. *arXiv preprint arXiv:2006.10801*, 2020

—∘ John Bronskill*, **Jonathan Gordon***, James Requeima, Sebastian Nowozin, and Richard Turner. TaskNorm: rethinking batch normalization for meta-learning. In *International Conference on Machine Learning*, 2020

—∘ **Jonathan Gordon***, Wessel P. Bruinsma*, Andrew Y. K. Foong, James Requeima, Yann Dubois, and Richard E. Turner. Convolutional Conditional Neural Processes. In *International Conference on Learning Representations*, 2020. (Oral presentation)

—∘ **Jonathan Gordon**, David Lopez-Paz, Marco Baroni, and Diane Bouchacourt. Permutation equivariant models for compositional generalization in language. In *International Conference on Learning Representations*, 2020

—∘ James Requeima*, **Jonathan Gordon***, John Bronskill*, Sebastian Nowozin, and Richard E. Turner. Fast and flexible multi-task classification using Conditional Neural Adaptive Processes. In *Advances in Neural Information Processing Systems 32*, 2019. (Spotlight)

—∘ Robert Pinsler, **Jonathan Gordon**, Eric Nalisnick, and José Miguel Hernández-Lobato. Bayesian batch active learning as sparse subset approximation. In *Advances in Neural Information Processing Systems 32*, 2019

—∘ **Jonathan Gordon***, John Bronskill*, Matthias Bauer, Sebastian Nowozin, and Richard Turner. Meta-learning probabilistic inference for prediction. In *International Conference on Learning Representations*, 2019

—∘ **Jonathan Gordon** and José Miguel Hernández-Lobato. Combining deep generative and discriminative models for Bayesian semi-supervised learning. *Pattern Recognition*, 2019

—∘ Francesco Paolo Casale*, **Jonathan Gordon***, and Nicolo Fusi. Probabilistic neural architecture search. *arXiv preprint arXiv:1902.05116*, 2019

—∘ Marton Havasi, Jasper Snoek, Dustin Tran, Jonathan Gordon, and José Miguel Hernández-Lobato. Refining the variational posterior through iterative optimization. In *Bayesian Deep Learning Workshop, NeurIPS 2020*, 2020

—∘ **Jonathan Gordon***, John Bronskill*, Matthias Bauer, Sebastian Nowozin, and Richard E Turner. Consolidating the meta-learning zoo: A unifying perspective as posterior predictive inference. In *MetaLearning Workshop, NeurIPS 2018*, 2018

—∘ **Jonathan Gordon***, John Bronskill*, Matthias Bauer, Sebastian Nowozin, and Richard E Turner. Versa: Versatile and efficient few-shot learning. In *Bayesian Deep Learning Workshop, NeurIPS 2018*, 2018

CO-AUTHORED SOFTWARE

The Neural Process Family 2020
A Tutorial and Unified Codebase
https://yanndubs.github.io/Neural-Process-Family

NeuralProcesses.jl 2020
Compositional Neural Processes in Julia
https://github.com/wesselb/NeuralProcesses.jl

ConvCNP 2020
Convolutional Conditional Neural Processes in PyTorch
https://github.com/cambridge-mlg/convcnp

CNAPs 2019
CNAPs *and* TaskNorm *for few-shot classification in PyTorch*
https://github.com/cambridge-mlg/cnaps

SCHOLARSHIPS AND AWARDS

Research Grant and Studentship 2017–2021
Full PhD Research Funding

Bruckmann Fund Award 2019–2020
Award for Outstanding Doctoral Research

AJA Karten Trust Scholarhip 2017–2020
Research Grant

Kenneth Lindsay Scholarship Trust 2017–2019
Research Grant

Dean's Scholarship for Outstanding Students 2015–2016
Graduate Scholarship

REFERENCES

Available upon request