Hao Wu

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Information Homepage: hao-w.github.io Github: hao-w

Research Interests Deep Probabilistic Models, Amortized Inference, Probabilistic Programming

EDUCATION Ph.D. Computer Science

2017 - Present

Northeastern University Boston, MA

Supervisor: Jan-Willem van de Meent

M.Sc, Computer Science 2015 - 2016

University of Virginia Charlottesville, VA

2014 - 2015 M.Sc, Applied Mathematics University of Washington Seattle, WA

B.Sc, Mathematics 2010 - 2014

Sichuan University Chengdu, China

Professional EXPERIENCE

Research Intern Summer 2021 IBM Research Cambridge, MA

Research Assistant Intern Summer 2020 Oracle Labs Burlington, MA

2017 - Present Research Assistant Northeastern University Boston, MA

Associate Software Engineer 2017

Tysons, VA MicroStrategy

Publications

Sam Stites*, Heiko Zimmermann*, Hao Wu, Eli Sennesh, Jan-Willem van de Meent. Learning Proposals for Probabilistic Programs with Inference Combinators. Uncertainty in Artificial Intelligence, 2021.

Hao Wu*, Babak Esmaeili*, Michael Wick, Jean-Baptiste Tristan, Jan-Willem van de Meent. Conjugate Energy-Based Models. International Conference on Machine Learning, 2021.

Heiko Zimmermann, Hao Wu, Babak Esmaeili, Sam Stites, Jan-Willem van de Meent. Nested Variational Inference. Symposium on Advances in Approximate Bayesian Inference, 2021

Hao Wu, Heiko Zimmermann, Eli Sennesh, Tuan-Anh Le, Jan-Willem van de Meent. Amortized Population Gibbs Samplers with Neural Sufficient Statistics. International Conference on Machine Learning, 2020.

Babak Esmaeili, **Hao Wu**, Sarthak Jain, Alican Bozkurt, N. Siddharth, Brooks Paige, Dana H. Brooks, Jennifer Dy, Jan-Willem van de Meent. Structured Disentangled Representations. *International Conference on Artificial Intelligence and Statistics*, 2019.

Eli Sennesh, Adam Ścibior, **Hao Wu**, Jan-Willem van de Meent. Composing Modeling and Inference Operations with Probabilistic Program Combinators. *NeurIPS Bayesian Nonparametrics Workshop*, 2018.

TEACHING Teaching Assistant 2018, 2021 EXPERIENCE Northeastern University Boston, MA

- Unsupervised Machine Learning and Data Mining

SKILLS Computer Programming: Python, Java
Operating Systems: Linux, Windows