Geoff Pleiss, Curriculum Vitae

Postdoctoral Research Scientist
Zuckerman Institute, Columbia University
Advisor: John Cunningham
(last updated August 29, 2020)

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Education

Ph.D.	Computer Science (2020)
	Cornell University (Ithaca, NY)
M.Sc.	Computer Science (2018)
	Cornell University (Ithaca, NY)
B.Sc.	Engineering: Computing with Applied Mathematics (2013)
	Olin College of Engineering (Needham, MA)
	GPA 3.86/4.0

Employment

2019-2020	Research Intern
	ASAPP Inc. (Ithaca, NY)
2018	Research Intern
	Microsoft Inc. (Redmond, WA)
2013–2015	Software Engineer
	Pivotal Inc. (New York, NY)

Honors and Awards

2017	National Science Foundation Graduate Research Fellowship Program
	Honorable mention
2016	National Science Foundation Graduate Research Fellowship Program
	Honorable mention
2012	Barry M. Goldwater Scholarship
	Honorable mention
2009–2013	Olin Merit Scholarship
	Full-tuition recipient

Research Positions

2020–	Postdoctoral Research Scientist
	Prof. John Cunningham
2016–2020	Graduate Research Assistant
	Prof. Kilian Weinberger
2015–2016	Graduate Research Assistant
	Prof. Carla Gomes

Teaching Positions

Fall 2017	CS6780 — *Advanced Topics in Machine Learning* Cornell University (w/ Prof. Kilian Weinberger)
Fall 2016	CS4786 — *Machine Learning for Data Science* Cornell University (w/ Prof. Karthik Sridharan)
Fall 2015	CS4700 — *Foundations of Artificial Intelligence* Cornell University (w/ Prof. Bart Selman)
Spring 2013	SCI3130 — *Advanced Classical Mechanics* Olin College (w/ Prof. Yevgeniya V. Zastavker)
Spring 2011	SCI1121 — *Computational Electricity and Magnetism* Olin College (w/ Prof. Mark Somerville)

Selected Open Source

2017-	GPyTorch `https://gpytorch.ai`
2017	Memory Efficient DenseNets `https://github.com/gpleiss/efficient_densenet_pytorch`

Invited Talks

May 2020	Columbia University
Nov. 2019	Cornell University
May 2019	Uber AI Symposium on Bayesian Optimization
Jul. 2018	International Conference on Machine Learning
Aug. 2017	International Conference on Machine Learning

Professional Service

Reviewing	AAAI (2017)
Reviewing	AISTATS (2019–2021)
Reviewing	ICML (2019–2020)
Reviewing	NeurIPS (2018–2020)
Reviewing	UAI (2018)

Publications

arXiv public author identifier: `http://arxiv.org/a/pleiss_g_1`.

Under Submission

[U1] **Geoff Pleiss**, Martin Jankowiak, David Eriksson, Anil Damle, and Jacob R Gardner. Fast matrix square roots with applications to gaussian processes and bayesian optimization. 2020.

[U2] **Geoff Pleiss**, Tianyi Zhang, Ethan Elenberg, and Kilian Q. Weinberger. Identifying mislabeled data using the area under the margin ranking. 2020.

Conference Proceedings

[C1] Martin Jankowiak, **Geoff Pleiss**, and Jacob R. Gardner. Deep sigma point processes. In *Uncertainty in Artificial Intelligence*, 2020.

[C2] Martin Jankowiak, **Geoff Pleiss**, and Jacob R. Gardner. Parametric Gaussian process regressors. In *International Conference on Machine Learning*, 2020.

[C3] Yurong You, Yan Wang, Wei-Lun Chao, Divyansh Garg, **Geoff Pleiss**, Bharath Hariharan, Mark Campbell, and Kilian Q Weinberger. Pseudo-lidar++: Accurate depth for 3d object detection in autonomous driving. In *International Conference on Learned Representations*, 2020.

[C4] Ke Wang, **Geoff Pleiss**, Jacob Gardner, Stephen Tyree, Kilian Q Weinberger, and Andrew Gordon Wilson. Exact Gaussian processes on a million data points. In *Neural Information Processing Systems*, 2019.

[C5] Jake Gardner, **Geoff Pleiss**, David Bindel, Kilian Q. Weinberger, and Andrew Gordon Wilson. GPyTorch: Blackbox matrix-matrix Gaussian process inference with gpu acceleration. In *Neural Information Processing Systems*, 2018.

[C6] **Geoff Pleiss**, Jacob R. Gardner, Andrew Gordon Wilson, and Kilian Q. Weinberger. Constant time predictive distributions for Gaussian processes. In *International Conference on Machine Learning*, 2018.

[C7] Jacob R. Gardner, **Geoff Pleiss**, Ruihan Wu, Andrew Gordon Wilson, and Kilian Q. Weinberger. Product kernel interpolation for scalable Gaussian processes. In *Artificial Intelligence and Statistics*, 2018.

[C8] **Geoff Pleiss**, Manish Raghavan, Felix Wu, Jon Kleinberg, and Kilian Q Weinberger. On fairness and calibration. In *Neural Information Processing Systems*, pages 5682–5691, 2017.

[C9] Chuan Guo, **Geoff Pleiss**, Yu Sun, and Kilian Q. Weinberg. On calibration of modern neural networks. In *International Conference on Machine Learning*, pages 1321–1330, 2017.

[C10] Paul Upchurch, Jacob Gardner, **Geoff Pleiss**, Kavita Bala, Robert Pless, Noah Snavely, and Kilian Weinberger. Deep feature interpolation for image content changes. In *Computer Vision and Pattern Recognition*, 2017.

[C11] Gao Huang, Yixuan Li, **Geoff Pleiss**, Zhuang Liu, John E. Hopcroft, and Kilian Weinberger. Snapshot ensembles: Train 1, get M for free. In *International Conference on Learned Representations*, 2017.

Journal Articles

[J1] Gao Huang, Zhuang Liu, **Geoff Pleiss**, Laurens Van Der Maaten, and Kilian Weinberger. Convolutional networks with dense connectivity. *Pattern Analysis and Machine Intelligence*, 2019.

[J2] James Knighton, **Geoff Pleiss**, Elizabeth Carter, Steven Lyon, M Todd Walter, and Scott Steinschneider. Potential predictability of regional precipitation and discharge extremes using synoptic-scale climate information via machine learning: An evaluation for the eastern continental united states. *Journal of Hydrometeorology*, 20(5):883–900, 2019.

Technical Reports

[T1] **Geoff Pleiss**, Danlu Chen, Gao Huang, Tongcheng Li, Laurens van der Maaten, and Kilian Q Weinberger. Memory-efficient implementation of densenets. *arXiv preprint arXiv:1707.06990*, 2017.

Outreach

Spring 2018   Cornell "Expand Your Horizons" (Taught STEM workshop for middle school girls)

Spring 2017   Cornell "GRASSHOPR" (Taught after-school CS class at local middle school)

Spring 2016   Cornell "Expand Your Horizons"

Spring 2016   "Code4Kids" (Taught after-school CS class at local elementary school)