

Geoff Pleiss, Curriculum Vitae

Postdoctoral Research Scientist
Zuckerman Institute, Columbia University
Advisor: John Cunningham
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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.

Conference Proceedings

- [C1] **Geoff Pleiss**, Martin Jankowiak, David Eriksson, Anil Damle, and Jacob R Gardner. Fast matrix square roots with applications to gaussian processes and bayesian optimization. In *Neural Information Processing Systems*, 2020.
- [C2] **Geoff Pleiss**, Tianyi Zhang, Ethan Elenberg, and Kilian Q. Weinberger. Identifying mislabeled data using the area under the margin ranking. In *Neural Information Processing Systems*, 2020.
- [C3] Martin Jankowiak, **Geoff Pleiss**, and Jacob R. Gardner. Deep sigma point processes. In *Uncertainty in Artificial Intelligence*, 2020.
- [C4] Martin Jankowiak, **Geoff Pleiss**, and Jacob R. Gardner. Parametric Gaussian process regressors. In *International Conference on Machine Learning*, 2020.
- [C5] 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.
- [C6] 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.
- [C7] 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.
- [C8] **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.
- [C9] 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.
- [C10] **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.
- [C11] 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.
- [C12] 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.
- [C13] 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.

* Authors contributed equally.

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)