Michael Minyi Zhang
Curriculum Vitae

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Academic Positions

2018–*current* | **Post-doctoral Researcher**. Department of Computer Science, Princeton University.
Advisors: Barbara Engelhardt, Brandon Stewart.

Education

2018 | **Ph.D. Statistics**. The University of Texas at Austin.
Advisor: Sinead Williamson.

2016 | **M.S. Statistics**. The University of Texas at Austin.
Advisor: Sinead Williamson.

2013 | **B.S. Statistics** (Honors); **B.A. Political Science** (Honors and Distinction in Major); **Minor in Russian**. University of California, Santa Barbara.
Advisor: Cynthia Kaplan.

Publications and Pre-prints

L.-F. Cheng, B. Dumitrascu, **M. M. Zhang**, C. Chivers, K. Li, and B. E. Engelhardt. Personalized effects of medication on patients using latent force models with Gaussian processes. 2019. arXiv:1906.00226. In review.

A. Dubey, **M. M. Zhang**, E. P. Xing, and S. A. Williamson. Distributed, partially collapsed MCMC for Bayesian nonparametrics. 2019. In review. Joint first author.

L. Lin, B. Saparbayeva, **M. M. Zhang**, and D. B. Dunson. Accelerated algorithms for convex and non-convex optimization on manifolds. 2019. In review.

F. Pérez-Cruz, P. M. Olmos, **M. M. Zhang**, and H. Huang. Probabilistic time of arrival localization. *IEEE Signal Processing Letters*, 26(11):1683–1687, 2019. arXiv:1910.06569.

M. M. Zhang, B. Dumitrascu, S. A. Williamson, and B. E. Engelhardt. Sequential Gaussian processes for online learning of nonstationary functions. 2019. arxiv:1905.10003. In review.

M. M. Zhang and S. A. Williamson. Embarrassingly parallel inference for Gaussian processes. 2019. arXiv:1702.08420. Appeared in "Advances in Approximate Bayesian Inference" as workshop paper. To appear in the Journal of Machine Learning Research.

M. M. Zhang, S. A. Williamson, and F. Pérez-Cruz. Accelerated parallel non-conjugate sampling for Bayesian non-parametric models. 2019. arXiv:1705.07178. In review, revise and resubmit. Appeared in "BNP@NeurIPS 2018" as workshop paper. Previously known as "Accelerated Inference for Latent Variable Models".

S. A. Williamson, **M. M. Zhang**, and P. Damien. A new class of time-dependent latent factor models with applications. 2019. arXiv:1904.08548. To appear in the Journal of Machine Learning Research.

Z. I. Phillips, **M. M. Zhang**, and L. Reding. Social immune tolerance as a special protection of the queen. 2018. In review.

B. Saparbayeva, **M. M. Zhang**, and L. Lin. Communication efficient parallel algorithms for optimization on manifolds. *Advances in Neural Information Processing Systems 31*, pages 3578–3588, 2018. Accepted as poster.

M. M. Zhang, H. Lam, and L. Lin. Robust and parallel Bayesian model selection. *Computational Statistics and Data Analysis*, 127:229 – 247, 2018.

Z. I. Phillips, **M. M. Zhang**, and U. G. Müller. Dispersal of *Attaphila fungicola* (Blattodea: Ectobiidae), a symbiotic cockroach of leafcutter ants (Hymenoptera: Formicidae). *Insectes Sociaux*, 64(2):277–284, 2017.

M. M. Zhang, D. E. Schiavazzi, and L. Lin. Recombination of parallel Markov chains using local regression and Dirichlet process mixture models. 2017. Working paper.

M. M. Zhang, A. Dubey, and S. A. Williamson. Parallel Markov chain Monte Carlo for the Indian buffet process. 2015. "Bayesian Nonparametrics: The Next Generation" workshop paper.

Presentations

	Embarrassingly Parallel Inference for Gaussian Processes.
Jan. 2020	Contributed talk at 2020 Bayes Comp, ISBA.
Jul. 2019	Contributed talk at 2019 Joint Statistical Meetings.
Oct. 2017	Invited talk at Department of Statistics and Data Sciences, University of Texas at Austin.
Jun. 2017	Contributed talk at 11th Conference on Bayesian Nonparametrics, ISBA.
	A New Class of Time-dependent Latent Factor Models with Applications.
Jun. 2019	Contributed talk at 12th Conference on Bayesian Nonparametrics, ISBA.
	Parallel MCMC Recombination for Big Data Analysis.
Apr. 2018	Invited talk at Department of Applied and Computational Mathematics and Statistics, Notre Dame University.
	Robust and Parallel Bayesian Model Selection.
Aug. 2016	Poster at Boston University/Keio University Workshop in Probability and Statistics.
	Parallel Markov Chain Monte Carlo for the Indian Buffet Process.
Dec. 2015	Contributed talk and poster at "Bayesian Nonparametrics: The Next Generation" workshop at NeurIPS.

Professional Positions

2016	**Summer Research Intern**. Wireless Research for the Internet of Things, Nokia Bell Labs. *Supervisors: Fernando Pérez-Cruz, Howard Huang.*
2013–14	**Analyst**. Rule14 LLC.

Teaching Experience

Summer 2019	**Instructor, Princeton AI4ALL.** Taught introductory Python and natural language processing courses.
Fall 2014	**Teaching Assistant, Department of Statistics and Data Science, UT Austin.** Teaching assistant for introductory statistics course, SDS 304.
2012–13	**Math and Statistics Tutor, UCSB Campus Learning Assistance Services.** Tutored students in statistics, calculus and linear algebra. Taught group lessons for introductory calculus course.

Honors and Awards

2019	**Travel Award**. The 12th Conference on Bayesian Nonparametrics, ISBA.
2018	**Travel Award**. The 32nd Annual Conference on Neural Information Processing Systems.
2017	**Travel Award**. The 11th Conference on Bayesian Nonparametrics, ISBA.
2015	**Bonus Fellowship for Continuing Students**. The Graduate School at UT Austin.

Academic Service

2020	**Reviewer**, AISTATS.
2019	**Reviewer**, AISTATS, ICML, JMLR, NeurIPS.
2018	**Reviewer**, Bayesian Non-Parametrics NeurIPS Workshop, ICML, NeurIPS, UAI.
2017	**Reviewer**, NeurIPS.
2016	**Reviewer**, Bayesian Non-Parametrics NeurIPS Workshop.

Personal Information and Skills

Technical	Python, Matlab, R.
Citizenship	United States.

References

Sinead Williamson
Assistant Professor, Ph.D. Advisor
Department of Statistics and Data Science
The University of Texas at Austin
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Barbara Engelhardt
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Brandon Stewart
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