# Ashia C. Wilson

# IDENTIFYING DATA

E-mail: ashia07@mit.com

WWW: https://ashia-wilson.github.io

#### ACADEMIC HISTORY

# University of California, Berkeley

Ph.D., Statistics 2012-2018

Advisors: Professors Michael I. Jordan and Benjamin Recht

**Harvard University** 

Bachelor, Applied Mathematics (with honors) 2007-2011

### EMPLOYMENT RECORD

MIT, Assistant Professor of Electrical Engineering and Computer Science 2021

Microsoft Research, Postdoctoral Researcher 2018-2020

Google AI, Summer Intern with Yoram Singer 2017-2018

MIT, Research Assistant in Prediction Analysis Lab with Professor

Cynthia Rudin

2017-2018

#### PROFESSIONAL EXPERIENCE

**Co-President:** UC Berkeley's Statistics Graduate Student Association **2016** 

## University of California, Berkeley Graduate Instructor

EE227C: Optimization for Modern Data Analysis 2015 Stat154: Modern Statistical Prediction and Machine Learning 2015

#### Reviewer

Neural Information Processing Systems (2017, 2020), Journal of Machine Learning Research (2019).

## AWARDS AND HONORS

| NeurIPS '17 spotlight paper award for The Marginal Value of Adaptive Methods in Machine Learning | 2017      |
|--|-----------|
| Rising Stars in EECS, Invited Participant  | 2017      |
| National Science Foundation Graduate Research Fellowship   | 2014-2017 |
| UC Berkeley Chancellors Fellowship   | 2012-2014 |
| GEM Fellowship   |           |
| Harvard Fung Fellowship  | 2010      |
| Best Paper, MERIT Research Program at University of Maryland                                     | 2009      |

### **PUBLICATIONS**

### Refereed Journal Publications

Broderick, T., Wilson, A. C., and Jordan, M. I. (2018). Posteriors, conjugacy, and exponential families for completely random measures. *Bernoulli*.

Wibisono, A., Wilson, A. C., and Jordan, M. I. (2016). A variational perspective on accelerated methods of optimization. *Proceedings of the National Academy of Science (PNAS)*.

# Refereed Conferences/Symposia Proceedings

Wilson, A. C., Kasy, M., and Mackey, L. (2020). Approximate cross-validation: guarantees for model assessment and selection. *To appear at the 23rd International Conference on Artificial Intelligence and Statistics (AISTATS)*.

Liu, L. T., Wilson, A. C., Haghtalab, N., Kalai, A. T., Borgs, C., and Chayes, J. (2020). The disparate equilibria of algorithmic decision making when individuals invest rationally. *ACM conference on Fairness, Accountability and Transparency (FAT\*)*.

Wilson, A. C., Mackey, L., and Wibisono, A. (2019). Accelerating rescaled gradient descent: fast minimization of smooth functions. *In Advances in Neural Information Processing Systems (NeurIPS)*, 31.

Wilson, A. C., Roelofs, R., Stern, M., Srebro, N. and Recht, B. (2017). The marginal value of adaptive methods in machine learning. *In Advances in Neural Information Processing Systems (NeurIPS)*, 29. (Awarded Spotlight Presentation)

Tu S., Venkataraman, S., Wilson, A. C., Jordan, M.I. and Recht, B. (2017). Breaking locality accelerates block Gauss-Seidel. *In the International Conference of Machine Learning (ICML), 34*.

Broderick, T., Boyd, N., Wibisono, A., Wilson, A. C., and Jordan, M. I. (2014). Streaming variational Bayes. *In Advances in Neural Information Processing Systems (NeurIPS)*, 26.

#### **Preprints**

Wilson, A. C., Recht, B. and Jordan, M. I. (2016). A Lyapunov analysis of momentum methods in optimization. *Under Review*.

Betancourt, M., Jordan, M. I. and Wilson A. C. (2017). On symplectic optimization.

## PRESENTATIONS

## **Invited Plenary Talks**

Caltech Young Investigator Lecturer in Engineering and Applied Science 2017

# Other Invited Presentations

| UC Berkeley Rise Lab | 2017 |
|----------------------|------|
| UC Berkeley BSTARs   | 2017 |
| UC Berkeley Amp Camp | 2014 |

#### **Workshop and Conference Presentations**

Optimization and Statistical Learning (OSL), Les Houches 2019

| 57th IEEE Conference on Decision and Control, Miami Beach                          | 2018 |
|--|------|
| Information Theory and Applications Workshop (ITA)                                 | 2017 |
| SIAM Conference on Optimization (OP17)   | 2017 |
| Cornell Young Research Workshop  | 2017 |
| Department Seminars  |      |
| Johns Hopkins: Invited Seminar, Mathematical Institute for<br>Data Science (MINDS) | 2020 |
| Rice: Invited Seminar, Computational and Applied Mathematics                       | 2020 |
| University of Maryland: Invited Seminar, Computer Science                          | 2020 |
| Cornell: Invited Seminar, Operations Research and Information<br>Engineering       | 2020 |
| Yale: Invited Seminar, Computer Science  | 2020 |
| Brown: Invited Seminar, Computer Science   | 2020 |
| New York University: Invited Seminar, Computer Science                             | 2020 |
| University of Chicago: Invited Seminar, Computer Science                           | 2020 |
| Carnegie Melon University: Invited Seminar, Computer Science                       | 2020 |
| Georgia Tech: Invited Seminar, Computer Science                                    | 2020 |
| Stanford: Invited Seminar, Computer Science and Management Science & Engineering   | 2020 |
| UMass Amherst: Special Seminar, Applied Mathematics                                | 2019 |
| MIT Operations Research Seminar  | 2019 |
| ETH, Zurich Statistics Seminar Series  | 2019 |
| Georgia Tech ISYE Seminar  | 2018 |
| MIT LIDS Seminar   | 2018 |
| TTIC Young Researcher Seminar Series   | 2017 |
| Microsoft Research Theory Group, Seattle   | 2017 |
|  |      |