

Michael J. Curry

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Education

- 2017 – Present 📖 **Ph.D. Candidate, University of Maryland** in Computer Science.
2014-2016 📖 **M.S., Columbia University, NY** in Computer Science.
2010 – 2014 📖 **B.A. *cum laude*, Amherst College** in Computer Science.

Employment History

- 9/2017 – Present 📖 **Graduate Assistant** University of Maryland.
Supported by
- DARPA “Guaranteeing AI Robustness Against Deception (GARD)”
 - AFOSR MURI “Innovations in Mean-Field Game Theory for Scalable Computation and Diverse Applications”
 - DARPA “Serial Interactions in Imperfect Information Games for Complex Military Decision-Making (SI3-CMD)”
- Summer 2020 📖 **Researcher** Institute for Pure and Applied Mathematics, UCLA.
G-RIPS Summer Program (Industry Partner: AMD)
Investigated machine learning for improving Quantum Monte Carlo approaches to finding ground state solutions of the Schrödinger equation.
- 2017 – 2018 📖 **Research Associate.** NIH, Bethesda, MD.
In Section on Quantitative Imaging and Tissue Sciences, worked on NIH BRAIN Initiative grant to characterize the latency of signal propagation in the brain by combining functional and structural imaging data
- 2016 📖 **R&D Engineer.** Text IQ, New York, NY.
Maintained and improved, in response to rapidly changing requirements, a data processing and modeling pipeline, making predictions about email data in the legal space.
- 2012 – 2014 📖 **Peer Tutor & TA** Amherst College, Amherst, MA.

Research Publications

M. J. Curry, P.-Y. Chiang, T. Goldstein, and J. Dickerson, “Certifying strategyproof auction networks”, in *Neural Information Processing Systems (NeurIPS)*, 2020.

P.-Y. Chiang, M. J. Curry, A. Abdelkader, A. Kumar, J. Dickerson, and T. Goldstein, “Detection as regression: Certified object detection by median smoothing”, in *Neural Information Processing Systems (NeurIPS)*, 2020.

D. McElfresh, M. J. Curry, T. Sandholm, and J. Dickerson, “Improving policy-constrained kidney exchange via pre-screening”, in *Neural Information Processing Systems (NeurIPS)*, 2020.

- F. Christia, **M. J. Curry**, C. Daskalakis, E. Demaine, J. Dickerson, M. Hajiaghayi, A. Hesterberg, M. Knittel, and A. Milliff, “Scalable equilibrium computation in multi-player influence games on networks”, 2020, working paper.
- A. Abdelkader, **M. J. Curry**, L. Fowl, T. Goldstein, A. Schwarzschild, M. Shu, C. Studer, and C. Zhu, “Headless horseman: Adversarial attacks on transfer learning models”, in *International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, 2020, pp. 3087–3091.
- M. J. Curry**, J. P. Dickerson, K. A. Sankararaman, A. Srinivasan, Y. Wan, and P. Xu, “Mix and match: Markov chains and mixing times for matching in rideshare”, in *Conference on Web and Internet Economics (WINE)*, 2019.
- M. J. Curry**, D. McElFresh, X. You, C. Moy, F. Huang, T. Goldstein, and J. P. Dickerson, “Reinforcement learning for dynamic set packing”, in *Multi-disciplinary Conference on Reinforcement Learning and Decision Making (RLDM)*, 2019.
- L. Walker, **M. J. Curry**, A. Nayak, N. Lange, C. Pierpaoli, and B. D. C. Group, “A framework for the analysis of phantom data in multicenter diffusion tensor imaging studies”, *Human brain mapping*, vol. 34, no. 10, pp. 2439–2454, 2013.
- M. O. Irfanoglu, **M. J. Curry**, E. Özarslan, C. G. Koay, S. Pajevic, and P. J. Basser, “Diffusion tensor uncertainty: Visualization and similarity metrics”, in *Proceedings of the International Society of Magnetic Resonance in Medicine (ISMRM)*, 2012.
- L. Walker, **M. J. Curry**, N. Amritha, N. Lange, C. Pierpaoli, and T. B. D. C. Group, “Impact of the analysis of phantoms on data quality for the dti component of the nih mri study of normal brain development”, in *Proceedings of the International Society of Magnetic Resonance in Medicine (ISMRM)*, 2012.
- F. Tannazi, L. Walker, **M. J. Curry**, and C. Pierpaoli, “Bias in diffusion tensor-derived quantities depend on the number of dwis composing the dt-mri dataset”, in *Proceedings of the International Society of Magnetic Resonance in Medicine (ISMRM)*, 2011.

Technical Skills

Coding – Daily Use	Python.
Coding – Some Experience	Julia, Java, Mathematica.
Tools and Frameworks	Numpy/Scipy, PyTorch, Gurobi, SQL.

Miscellaneous Experience

Professional Service

2020	NeurIPS, ICML reviewer.
2019	IJCAI, EC reviewer.

Teaching Roles

Teaching TA	CMSC 216 (Introduction to Computer Systems).
Grading TA	CMSC 351 (Algorithms).