

Marc Finzi

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Education

- 2019 - Now **Ph.D. in Computer Science**, *NYU Courant*, NYC
Supervised by Andrew Gordon Wilson
- 2017 - 2019 **Masters in Operations Research**, *Cornell*, Ithaca, NY
Supervised by Andrew Gordon Wilson
- 2013 - 2017 **B.S. Physics**, *Harvey Mudd College*, Claremont, CA, GPA: 3.7

Experience

- Summer 2021 **Deep Learning Research Intern at NVIDIA**, *Lidar Perception*
◦ Improving object detection from Lidar point clouds
- Summer 2020 **Research Intern at Qualcomm**, *with Max Welling*
◦ Developed probabilistic numeric convolutional neural networks, culminating in a patent application and ICLR2021 paper
- Summer 2019 **Applied Scientist intern at Amazon**
◦ Applying deep learning methods for ranking and recommendation
- 2015 - 2017 **Undergraduate Thesis in Physics**, *Tom Donnelly's lab*, Harvey Mudd College
◦ Led three-man HMC team at UT Austin to conduct laser physics experiment
- Summers 2014, 2015 **Applied Physics Intern at NASA**, *Alexander Kuttyrev's lab*, NASA Goddard Space Flight Center
◦ Embedded systems programming, analogue and digital circuit design, PCB design, computer vision

Technical Skills

- Relevant Coursework Advanced Machine Learning Systems, Computer Vision, Bayesian Machine Learning, Topics in ML optimization, Numerical Analysis for Data Science, Approximate Dynamic Programming, Algorithms, Stochastic Processes
- Languages Python: 30k+ LoC, C++: 4k+ LoC, \LaTeX .
- Reviewing AISTATS 2019, ICML 2019, NeurIPS 2019, ICLR 2020, NeurIPS 2020

Publications

- NeurIPS 2021 **Residual Pathway Priors for Soft Equivariance Constraints**
Marc Finzi*, Greg Benton*, Andrew Gordon Wilson
- ICML 2021 **A Practical Method for Constructing Equivariant Multilayer Perceptrons for Arbitrary Matrix Groups**
Marc Finzi, Max Welling, Andrew Gordon Wilson
- ICML 2021 **SKling on Simplices: Kernel Interpolation on the Permutohedral Lattice for Scalable Gaussian Processes**
Sanyaam Kapoor*, Marc Finzi*, Ke Alexander Wang, Andrew Gordon Wilson
- ICLR 2021 **Probabilistic Numeric Convolutional Neural Networks**
Marc Finzi, Roberto Bonadesan, Max Welling
- NeurIPS 2020 **Simplifying Hamiltonian and Lagrangian Neural Networks via Explicit Constraints**
Marc Finzi*, Ke Alexander Wang*, Andrew Gordon Wilson
- NeurIPS 2020 **Learning Invariances in Neural Networks from Training Data**
Greg Benton, Marc Finzi, Pavel Izmailov, Andrew Gordon Wilson
- ICML 2020 **Generalizing Convolutional Neural Networks for Equivariance to Lie Groups on Arbitrary Continuous Data**
Marc Finzi, Samuel Stanton, Pavel Izmailov, Andrew Gordon Wilson
- ICML 2020 **Semi-Supervised Learning with Normalizing Flows**
Pavel Izmailov, Polina Kirichenko, Marc Finzi, Andrew Gordon Wilson
- ICLR 2019 **There Are Many Consistent Explanations of Unlabeled Data: Why You Should Average**
Ben Athiwaratkun, Marc Finzi, Pavel Izmailov, Andrew Gordon Wilson

Awards

- 2021 **Jacob T. Schwartz Fellowship**
Awarded for outstanding research performance in the PhD program