

Marc Finzi

Education

2017 - ???? **Ph.D. in Operations Research**, Cornell University, Ithaca, NY.

2013 - 2017 **B.S. Physics**, Harvey Mudd College, Claremont, CA, GPA: 3.7.

2009 - 2013 *Georgetown Day School*, Washington, DC.

Research Experience

2017 - Present **Deep Learning Research**, Prof. Andrew Wilson's group, Cornell, PhD student.

- Bested SoA performance on semi-supervised image classification benchmarks
- Broadly interested in Deep Learning with smaller amounts of labeled data

2015 - 2017 **Plasma Physics Research**, Prof. Tom Donnelly's lab, Harvey Mudd College, Undergraduate.

- Led three-man HMC team to set up an experiment at UT Austin to test the theory of multipass Stochastic Heating using the high-power GHOST laser. This experiment required more than 20 optical elements inside the vacuum chamber, alignment to a $5\mu\text{m}$ focal spot size, and careful synchronization between two laser systems.
- Computer Vision based solution for identifying microspheres in SEM images, achieving 95% accuracy.
- Experiment automation with LabView, NiDAQs, and ThorLab components.

Summers **Electrical Engineering**, Alexander Kuttyrev's lab, NASA Goddard Space Flight Center, Intern.

- 2014, 2015
- Brought concept of low cost, high precision (5mK), cryogenic temperature sensors based on the internal temperature response of commercially available transistors into practice.
 - Designed and prototyped a PCB for sensor control and PID, interfacing with an external microcontroller over SPI.

Publications

Ben Athiwaratkun, Marc Finzi, Pavel Izmailov, and Andrew Gordon Wilson. There are many consistent explanations of unlabeled data: Why you should average. *ICLR 2019 Preprint*, 2019.

(link, pdf)

Teaching Experience

2017 - Present **Teaching Assistant**, Cornell, Ithaca, NY.

TA for Simulation Modeling and Analysis TA for Basic Engineering Probability and Statistics (ENGRD 2700)

2015 - 2017 **Physics Academic Excellence Tutoring**, Harvey Mudd College, Claremont, CA.

Tutoring for freshman and sophomore physics classes.

Technical Skills

Relevant Coursework Advanced Machine Learning Systems, Computer Vision, Bayesian Machine Learning, Numerical Analysis for Data Science, Algorithms, Statistical Principles, Stochastic Processes, Differential Geometry, Algorithms, Programming Languages, Microprocessors.

Programming Languages Python, C++, \LaTeX .