

Adam Yedidia

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Google Scholar page <https://scholar.google.com/citations?user=fJzzz8IAAAAJ>

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EDUCATION

MIT

Cambridge, MA

- **Ph.D. Candidate, Electrical Engineering and Computer Science** *Summer 2020*
Thesis: The Theory of Occluder-based Non-line-of-sight Imaging
Committee: Gregory Wornell (advisor), Bill Freeman, Frédo Durand
Research Interests: Computational Imaging, Machine Learning, Optimization
Selected Courses: Inference Algorithms, Machine Learning, Inference and Information, **GPA: 4.8/5.0**
Computer System Architecture, Digital Systems Laboratory
- **M.Eng., Electrical Engineering and Computer Science** *June 2015*
Thesis: A Relatively Small Turing Machine Whose Behavior is Independent of Set Theory
Advisor: Scott Aaronson
- **B.S., Electrical Engineering and Computer Science** *June 2014*
Selected Grad Courses: Seminar in Information Theory, Advanced Algorithms, **GPA 5.0/5.0**
Theory of Computation, Advanced Data Structures, Cryptography and Cryptanalysis

PUBLICATIONS

- Andrea Lincoln, **Adam Yedidia**, “Faster Random k -CNF Satisfiability,” in submission to *STOC* 2020.
- Miika Aittala, Prafull Sharma, Lukas Murmann, **Adam Yedidia**, Gregory W. Wornell, William T. Freeman, Frédo Durand, “Computational Mirrors: Blind Inverse Light Transport by Deep Matrix Factorization,” *NeurIPS* 2019.
- **Adam B. Yedidia**, Manel Baradad, Christos Thrampoulidis, William T. Freeman, Gregory W. Wornell, “Using Unknown Occluders to Recover Hidden Scenes,” *CVPR* 2019.
- Ganesh Ajjanagadde, Christos Thrampoulidis, **Adam Yedidia**, Gregory Wornell, “Near-Optimal Coded Apertures for Imaging via Nazarov’s Theorem,” *ICASSP* 2019.
- Richard P. Brent, **Adam Yedidia** “Computation of Maximal Determinants of Binary Circulant Matrices.” *Journal of Integer Sequences* 2018.
- Manel Baradad, Vickie Ye, **Adam Yedidia**, Frédo Durand, William T. Freeman, Gregory W. Wornell, Antonio Torralba, “Inferring Light Fields From Shadows,” *CVPR* 2018.
- **Adam Yedidia**, Christos Thrampoulidis, Gregory Wornell, “Analysis and Optimization of Aperture Design in Computational Imaging,” *ICASSP* 2018.
- Katie L. Bouman, Vickie Ye, **Adam Yedidia**, Frédo Durand, Gregory W. Wornell, Antonio Torralba, William T. Freeman, “Turning Corners into Cameras: Principles and Methods,” *ICCV*, 2017.
- Manisha Bahl, Regina Barzilay, **Adam Yedidia**, Nicholas J. Locascio, Lili Yu, Constance D. Lehman, “High-Risk Breast Lesions: A Machine Learning Model to Predict Pathologic Upgrade and Reduce Unnecessary Surgical Excision,” *Radiology*, 2017.
- **Adam Yedidia** and Scott Aaronson, “A Relatively Small Turing Machine Whose Behavior Is Independent of Set Theory,” *Complex Systems*, 2016.
- Erik Demaine, Tim Kaler, Quanquan Liu, Aaron Sidford, and **Adam Yedidia**, “Polylogarithmic Fully Retroactive Priority Queues via Hierarchical Checkpointing,” *Workshop on Algorithms and Data Structures*, 2015.
- Michael Chertkov and **Adam Yedidia**, “Approximating the Permanent with Fractional Belief Propagation,” in *Journal of Machine Learning Research*, 2013.

PROFESSIONAL EXPERIENCE

High school teacher, Maimonides High School

January 2023-June 2023

Teaching four classes: honors geometry, accelerated geometry, honors algebra 2, AP Statistics

Fullstack software developer, finance company*January 2021-November 2021*

Used Python and Javascript React to build and maintain an API interface using Flask to interact with Redis and Postgres databases (using the SQLAlchemy package)

PhD Student, MIT*Fall 2015-Summer 2020***Teaching Assistant, MIT***Fall 2019**Mathematics for Computer Science (6.042)**Cambridge, MA*

Average Evaluation: 6.8/7.0

Research Intern, OpenAI*Summer 2019**Reinforcement Learning Team**San Francisco, CA*

Learning Optimization Research

Teaching Assistant, MIT*Spring 2015**Automata, Computability, and Complexity (6.045)**Cambridge, MA*

Average Evaluation: 6.8/7.0

Teaching Assistant, MIT*Fall 2014**Introduction to Algorithms (6.006)**Cambridge, MA*

Average Evaluation: 6.6/7.0

Trading Intern, Jane Street*Summer 2014**International ETFs and ADRs**New York City, NY*

Statistics and Data Analysis

Summer Intern, MIT*Summer 2013**Prof. David Gamarnik, MIT**Cambridge, MA*

Research on Graphical Models

Summer Intern, Capital Fund Management*Summer 2012**Prof. Jean-Philippe Bouchaud**Paris, France*

Portfolio Optimization

Summer Intern, Los Alamos National Laboratory*Summers 2010 and 2011**Dr. Michael Chertkov**Los Alamos, NM*

Machine Learning, Belief Propagation

Camp Counselor, Buckingham, Browne & Nichols School*Summers 2007-2009***AWARDS & ACHIEVEMENTS** _____

- Public Speaking award for presentation of Karatsuba's Algorithm, 2013
- Elected Phi Beta Kappa, 2014
- MIT Best Master's Thesis, 2015

PROGRAMMING SKILLS _____

- I actively use Python and Tensorflow in my current research and am a highly experienced Python programmer. I also have experience with Java, C++, Verilog, and MATLAB.

LANGUAGES _____

- I speak English natively and French fluently. I attended a bilingual French-English school through eighth grade.