D Ellis Hershkowitz

CMU Ph.D. Student in Theoretical Computer Science

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Education

Carnegie Mellon University — *Pittsburgh, PA*

Ph.D. in Computer Science — *Fall 2016 - Present*

- Advised by Professor Bernhard Haeupler.
- Research in: approximation algorithms; distributed graph algorithms; hardness of approximation.
- Relevant coursework: Advanced Operating and Distributed Systems; A Theorist's Toolkit; Theoretical Computer Science's Greatest Hits; Programming Language Semantics; Random Graphs; Graduate Combinatorics (audit); Graduate Artificial Intelligence; Special Topics in Combinatorial Optimization.

Brown University — *Providence, RI*

M.S. in Computer Science — *Fall 2015 - Spring 2016*

- GPA: 4.0/4.0
- Advised by Professor Michael Littman.
- Research in: abstraction in reinforcement learning.
- Relevant coursework: Multiprocessor Synchronization; Learning and Sequential Decision Making; Advanced Deductive Logic; Cryptography.

B.A. in Computer Science and Philosophy — *Fall 2012 - Spring 2015*

- GPA: 4.0/4.0
- Advised by Professor Stefanie Tellex.
- Research in: Humans to Robots Lab in reinforcement learning as applied to robotics.
- Relevant coursework: Multivariable Calculus; Linear Algebra; 2 Semester Introductory Computer Science; Statistical Inference I; Statistical Inference II; Models of Computation; Logic; Design and Analysis of Algorithms; Topics in Advanced Algorithms.

Publications

Reverse Greedy is Bad for k-Center — *In Submission*

With Gregory Kehne

Prepare for the Expected Worst: New Two-Stage Covering Models and Algorithms — *In Submission*

With Sahil Singla, R Ravi

A Computational Approach to Organizational Structure — *In Submission*

With Bernhard Haeupler, Anson Kahng, Ariel Procaccia

Erasure Correction for Noisy Radio Networks — *In Submission*

With Keren Censor-Hillel, Bernhard Haeupler, Goran Zuzic

Round- and Message-Optimal Distributed Graph Algorithms — *PODC 2018*

With Bernhard Haepler, David Wajc

(Symposium on Principles of Distributed Computing 2018)

Broadcasting in Noisy Radio Networks — *PODC 2017*

With Keren Censor-Hillel, Bernhard Haeupler, Goran Zuzic

(Symposium on Principles of Distributed Computing 2017)

Near Optimal Behavior via Approximate State Abstraction — *ICML 2016*

With David Abel, Michael Littman

(International Conference on Machine Learning 2016)

Goal-based Action Priors — *ICAPS 2015*

With David Abel, Gabriel Barth-Maron, Stephen Brawner, Kevin O'Farrell, James MacGlashan, Stefanie Tellex

(International Conference on Automated Planning and Scheduling 2015)

Teaching Experience

Fall 2017	**Graduate Complexity Theory (15-855)**, Graduate Teaching Assistant	*Carnegie Mellon*
Spring 2017	**Undergraduate Complexity Theory (15-455)**, Graduate Teaching Assistant	*Carnegie Mellon*
Spring 2016	**Introduction for Non-Majors (CS8)**, Teaching Assistant	*Brown*
Fall 2014	**Artificial Intelligence (CS141)**, Teaching Assistant	*Brown*
Spring 2014	**An Integrated Introduction to Computer Science (CS18)**, Teaching Assistant	*Brown*
Fall 2013	**An Integrated Introduction to Computer Science (CS17)**, Teaching Assistant	*Brown*

Industry Experience

Google Inc. *Mountain View, CA*

Software Engineering Intern in Apps Discovery Team *Summer 2015*

Chai Energy *Los Angeles, CA*

Backend Data Analyst (part time) *Spring 2014-Fall 2014*

Awards

2016	**NSF Graduate Research Fellowships Program**, honorable mention	
2015	**Magna Cum Laude** , highest university honors	*Brown*
2015	**Computer Science Honors Degree**, department-level honors	*Brown*
2015	**Sigma Xi Honors Society**, member	
2014	**Great TA Award**, elected “Great Teaching Assistant” for my work in Artificial Intelligence	*Brown*

Professional Service

2018-Present	**Reviewer**, SODA 2019; DISC 2018; STACS 2018.	
2017-Present	**Graduate Student Coordinator**, helped organize department orientation for new students	*Carnegie Mellon*
2017-2018	**Theory Lunch Organizer**, organized Carnegie Mellon University Theory Lunch	*Carnegie Mellon*
2014-2016	**Lab Organizer**, managed weekly Humans to Robots lab meetings: e.g. scheduling talks	*Brown*

Additional Research Experience

National Institutes of Health *Bethesda, MD*

Summer Research Intern in Section on Integrative Neuroimaging and Molecular Genetics Unit *Summers 2010, 2012, 2013*