Colin White

847-828-3885
7507 Gates Hillman Center
Carnegie Mellon University, Pittsburgh, PA 15213
crwhite@cs.cmu.edu
http://www.cs.cmu.edu/~crwhite/

EDUCATION

Ph.D. in Computer Science, Carnegie Mellon University, Dec 2018   Pittsburgh, PA
- Supported by the National Defense Science and Engineering Graduate (NDSEG) Fellowship, the Amherst Memorial Fellowship, and the John Woodruff Simpson Fellowship
- Thesis: *New Aspects of Beyond Worst-Case Analysis*, advised by Maria-Florina Balcan

B.A. in Computer Science and Mathematics, Amherst College, May 2014   Amherst, MA
- Cumulative GPA: 3.76/4.0, Computer Science GPA: 3.96/4.0, Mathematics GPA: 3.95/4.0
- Graduated *summa cum laude*
- Computer Science Prize recipient in 2014, for outstanding thesis work
- Thesis: *Lower Bounds on the Runtime of Routing Algorithms for Graphs of Low Highway Dimension*, advised by Lyle McGeoch

PUBLICATIONS

Data-Driven Clustering via Parameterized Lloyd's Families
M. Balcan, T. Dick, C. White
Selected for Spotlight Presentation, Advances in Neural Information Processing Systems (NeurIPS) 2018

Learning-Theoretic Foundations of Algorithm Configuration for Combinatorial Partitioning Problems
M. Balcan, V. Nagarajan, E. Vitercik, C. White
Conference on Learning Theory (COLT) 2017

Data-Driven Resource Allocation for Distributed Learning
T. Dick, M. Li, V. Pillutla, C. White, M. Balcan, A. Smola
International Conference on Artificial Intelligence and Statistics (AISTATS) 2017

Learning Combinatorial Functions from Pairwise Comparisons
M. Balcan, E. Vitercik, C. White
Conference on Learning Theory (COLT) 2016

k-center Clustering under Perturbation Resilience
M. Balcan, N. Haghtalab, C. White
International Colloquium on Automata, Languages, and Programming (ICALP) 2016

Lower Bounds in the Preprocessing and Query Phases of Routing Algorithms
C. White
European Symposium on Algorithms (ESA) 2015

Small dynamical heights for quadratic polynomials and rational functions
R. Benedetto, R. Chen, T. Hyde, Y. Kovacheva, and C. White
Experimental Mathematics, 2014

An Improved Parallel Iterative Algorithm for Stable Matching
C. White, E. Lu
SuperComputing 2013 (extended abstract)

TECHNICAL SKILLS

Experienced in: Python, Java, TensorFlow, Scikit-learn, MATLAB, Linux/Unix, LaTeX
Proficient in: OpenCV, AWS, SQL, Hadoop, Julia

INTERNSHIP

Toyota Technological Institute at Chicago (TTIC), Chicago, IL   May 2017 – Aug 2017
- Designed algorithms for clustering under perturbation resilience with sublinear runtime, using subsampling techniques. Advised by Yury Makarychev.

TALKS

Data-Driven Clustering via Parameterized Lloyd's Families
- Automated Algorithms Seminar at CMU, Pittsburgh, PA   May 2018

Robust Communication-Optimal Distributed Clustering Algorithms
- Theory Lunch Seminar at CMU, Pittsburgh, PA   Apr 2017

How to Give a Successful Theory Talk
- Machine Learning Dept. Journal Club Class at CMU, Pittsburgh, PA   Sep 2016

k-center Clustering under Perturbation Resilience
- Simons Institute BWCA Workshop, Berkeley, CA   Nov 2016
- Theory Lunch Seminar at CMU, Pittsburgh, PA   Sep 2016
- Dagstuhl Workshop on Learning Theory, Wadern, Germany   Aug 2015

AWARDS AND HONORS

- **NeurIPS Student Travel Grant**   2018
- **Conference on Learning Theory (COLT) Student Travel Grant**   2017
- **CMU Graduate Student Association/Provost Conference Funding**   2016 – 2017
- **Heidelberg Laureate Forum**, invited as a Young Researcher   2015
- **Post-Baccalaureate Summer Research Fellowship**, Amherst College   2014
  For completing an honors thesis of exceptionally high quality
- **Sigma Xi**, selected for membership in Spring 2014   2014
- **Henry F. Dunbar Award**, Amherst College Swimming and Diving Team   2014
  For academic and athletic achievement

SERVICE

- **Program Committee Member**, ICML, UAI   2016, 2019
- **Subreviewer,** JMLR, Algorithmica, TALG, NeurIPS, ICML, FOCS, STOC   2015 – 2019
- **Doctoral Review Committee Member**, CMU   2015 – 2018
  A panel of graduate students and faculty who oversee the Ph.D. program
- **FreeCSD,** a social organization for the Ph.D. department at CMU   2015 – 2018
- **Theory Lunch Organizer,** CMU   2016
- **Ph.D. Admitted Students Open House Organizer,** CMU   2016

TEACHING

Carnegie Mellon University
- **Introduction to Machine Learning**, TA, homework writer, grader   Spring 2018
- **Algorithms in the Real World,** TA, homework writer, grader   Fall 2015

Amherst College
- **COSC 201, Data Structures and Algorithms I,** TA, Tutor   Spring 2014
- **MATH 355, Real Analysis,** Grader   Spring 2012-14
- **PHIL 213, Logic,** TA, Grader   Fall 2013
- **COSC 401, Theoretical Foundations of Computer Science**, Tutor   Spring 2013
- **MATH 250, Number Theory,** TA, Grader   Fall 2012