Alice J. Paul

alicepaul.github.io

CONTACT INFORMATION

apaul@olin.edu

ACADEMIC APPOINTMENTS

Assistant Professor of Applied Mathematics and Computer Science
Franklin W. Olin College of Engineering, 2019–Current.

Postdoctoral Research Associate
Data Science Initiative, Brown University, 2017–2019.
Advised By: Pedro Felzenszwalb.

EDUCATION

Cornell University, Ithaca, NY.
Ph.D. Operations Research and Information Engineering, August 2017.
Advised By: David P. Williamson.

Harvey Mudd College, Claremont, CA.
B.S. Mathematics with High Distinction, May 2012.

PUBLICATIONS

Alice Paul and David Williamson. *Easy Capacitated Facility Location Problems, with Connections to Lot-Sizing*, forthcoming in Operations Research Letters, 2020.

Alice Paul, Daniel Freund, Aaron Ferber, David Shmoys, and David Williamson. *Budgeted Prize-Collecting Traveling Salesman and Minimum Spanning Tree Problems*, Mathematics of Operations Research, 2019.

Amariah Becker and **Alice Paul**. *A Framework for Vehicle Routing Approximation Algorithms in Trees*, Algorithms and Data Structures Symposium, 2019.

Jacob Feldman, **Alice Paul**, and Huseyin Topaloglu. *Technical Note: Assortment Optimization with Small Consideration Sets,* Operations Research, 2019.

Jacob Feldman and **Alice Paul**. *Relating the Approximability of the Fixed Cost and Space Constrained Assortment Problems*, Production and Operations Management, 2018.

Alice Paul, Daniel Freund, Aaron Ferber, David Shmoys, and David Williamson. *Prize-Collecting Traveling Salesman with a Budget Constraint*, European Symposium on Algorithms, 2017.

Alice Paul, Jacob Feldman, and James Mario Davis. *Assortment Optimization and Pricing under a Nonparametric Tree Choice Model*, Manufacturing and Service Operations Management, 2017.

Alice Paul, Matthias Poloczek, and David P. Williamson. *Simple Approximation Algorithms for Balanced MAX 2SAT*, Algorithmica, 2017.

Alice Paul, Matthias Poloczek, and David P. Williamson. *Simple Approximation Algorithms for Balanced MAX 2SAT*, Latin American Theoretical Informatics Symposium, 2016.

Alice Paul and Nicholas Pippenger. *A Census of Vertices by Generations in Regular Tessellations of the Plane*, Electronic Journal of Combinatorics, 2011.

BOOK CHAPTERS

Daniel Freund, Ashkan Norouzi-Fard, **Alice Paul**, Shane Henderson and David B. Shmoys. *Data-Driven Rebalancing Methods for Bike-Share Systems*, in E. Chrisotomi et al. (ed.), *Analytics for the Sharing Economy: Mathematics, Engineering, and Business Perspectives*, 2020.

Preprints

Alice Paul and Susan Martonosi. *Operations Research*, in Nathan Carter (ed.), *Data Science for Mathematicians*, 2020.

Invited Presentations

"Iterative Algorithms for Semidefinite Programming," American Mathematical Society Eastern Sectional Meeting, forthcoming 2020.
"Prize-Collecting TSP with a Budget Constraint," International Symposium on Math Programming, 2018.
"Data-Driven Optimization for Bike-Share Systems," Data Science Initiative Colloquium, Brown University, 2017.
"Prize-Collecting TSP with a Budget Constraint," European Symposium on Algorithms, 2017.
"Assortment Optimization for Choosy Customers," INFORMS, 2016.
"Assortment Optimization for Choosy Customers," INFORMS Revenue Management and Pricing Conference, 2016.
"Simple Approximation Algorithms for Balanced MAX 2SAT," LATIN, 2016.
"Revenue Management under a Nonparametric Ranking-Based Choice Model," INFORMS, 2015.
"Detecting Covert Members of Terrorist Networks," Young Women in Discrete Math, 2013.
"Detecting Covert Members of Terrorist Networks," INFORMS, 2012.

Teaching Experience

ENGR 3599: Data Structures and Algorithms, Olin College, SP 2020.
MTH 1111/SCI 1111: Modeling and Simulation of the Physical World, Olin College, FA 2019.
DATA 2020: Probability, Statistics, and Machine Learning, Brown University, SP 2019.
DATA 2020: Probability, Statistics, and Machine Learning, Brown University, SP 2018.
ENGRI 1101: Engineering Applications of Operations Research, Cornell University, FA 2016.
ORIE 3310: Optimization II, Cornell University, SU 2015.

Honors and Awards

NDSEG Fellow
INFORMS Undergraduate Research Prize 2012
ORIE Teaching Assistant of the Year 2013-2014
Sage Diversity Fellowship
Sherri Koenig Stuewer Graduate Fellowship
Harvey S. Mudd Scholar

Reviewer

Operations Research, Algorithmica, Operations Research Letters, Mathematical Programming, SIAM Journal of Discrete Mathematics, Probability in the Engineering and Informational Sciences.