

CONTACT
INFORMATION

alice_paul@brown.edu

ACADEMIC
APPOINTMENTS

Assistant Professor of Biostatistics, Teaching Scholar
Brown University, 2020–Current.

Assistant Professor of Applied Mathematics and Computer Science
Franklin W. Olin College of Engineering, 2019–2020.

Postdoctoral Research Associate
Department of Biostatistics and the 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.

HONORS AND
AWARDS

Dean’s Award for Excellence in Classroom Teaching in the School of Public Health, Spring 2022.
NDSEG Fellow

PUBLICATIONS

Pedro Felzenszwalb, Caroline Klivans, and **Alice Paul**. *Clustering with Iterated Linear Optimization*, Journal of Machine Learning Research, 2022.

Pedro Felzenszwalb, Caroline Klivans, and **Alice Paul**. *Iterated Linear Optimization*, Quarterly of Applied Mathematics, 2021.

Alice Paul and David Williamson. *Easy Capacitated Facility Location Problems, with Connections to Lot-Sizing*, 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 **Alice Paul** and Susan Martonosi. *Operations Research*, in Nathan Carter (ed.), *Data Science for Mathematicians*, 2020.

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. *The All-Pairs Vitality-Maximization (VIMAX) Problem*, In Submission, 2022.

INVITED PRESENTATIONS “Iterative Algorithms for Semidefinite Programming,” American Mathematical Society Eastern Sectional Meeting, 2021.
 “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 PHP 1560/2560: Statistical Programming in R, Brown University, FA 2020, FA 2021, SP 2022.
 PHP 2550: Practical Data Analysis, Brown University, FA 2020, FA 2021, SP 2022.
 PHP 2650: Statistical Learning and Big Data, Brown University, SP 2021, SP 2022.
 DATA 2020: Statistical Learning, Brown University, SP 2018, SP 2019, SP 2022.
 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.
 ENGRI 1101: Engineering Applications of Operations Research, Cornell University, FA 2016.
 ORIE 3310: Optimization II, Cornell University, SU 2015.

ADVISING AND MENTORING Antonella Basso, Biostatistics Masters Thesis, Brown University, Fall 2022.
 Kyran Flynn, Undergraduate Thesis, Brown University, Fall 2022.
 Gaelen Adam, PhD Independent Study on Sequence Models, Brown University, Fall 2022.
 Tongtong Zhao, Data Science Masters Capstone, Brown University, Summer 2022.
 Zhirui Li, Data Science Masters Capstone, Brown University, Summer 2022.
 Kyran Flynn, Undergraduate Research Student, Brown University, Spring 2022.
 Tobias Dekara, Biostatistics Masters Thesis, Brown University, Fall 2021-Spring 2022.
 Cassandra Overney, Undergraduate Research Student, Olin College, Fall 2019-Spring 2021.
 Manu Patil, Undergraduate Research Student, Olin College, Spring 2020.
 Victoria McDermott, Independent Study, Olin College, Fall 2019.
 Pravallika Dhulipalla, Independent Study, Olin College, Fall 2019.
 Emily Jaekle, Data Science Masters Capstone Advisor, Brown University, Summer 2018.
 Sibel Kadioglu, Data Science Masters Capstone Advisor, Brown University, Summer 2018.
 Daniel Suh, Undergraduate Research Student, Brown University, Summer 2018.

SERVICE	<p>Data Science Advisory Board, Fall 2021-Current.</p> <p>Online MPH Faculty Advisory Committee, Fall 2021 - Current.</p> <p>Biostatistics Academic Program Committee, Fall 2021 - Current.</p> <p>Masters in Biostatistics Admission Committee. Department of Biostatistics, Brown University, Spring 2021-Current.</p> <p>Masters of Public Health Core Adviser, Brown University, Fall 2021-Current.</p> <p>Online MPH Teaching Scholar Search, Fall 2021-Spring 2022.</p> <p>Biostatistics Teaching Scholar Search Committee, Fall 2021-Spring 2022.</p> <p>Nora Kahn Piore Award Selection Committee. School of Public Health, Brown University, Spring 2022.</p> <p>Masters of Public Health Admissions Committee. School of Public Health, Brown University, Spring 2021.</p>
TEACHING TRAINING	<p>Sheridan Center Junior Faculty Teaching Fellows Program. Brown University, Fall 2020 - Spring 2021.</p> <p>Sheridan Center Anchor Program. Brown University, Fall 2020.</p>
REVIEWER	<p>Production and Operations Management, Operations Research, Algorithmica, Operations Research Letters, Mathematical Programming, SIAM Journal of Discrete Mathematics, Probability in the Engineering and Informational Sciences.</p>