Alice J. Paul

Contact Information	alice_paul@brown.edu (973)-615-4398
Academic Appointments	**Assistant Professor of Applied Mathematics and Computer Science**, Olin College. Starting Fall 2019. **Postdoctoral Research Associate**, Data Science Initiative, Brown University. Advised By: Pedro Felzenszwalb. 2017-2019.
Education	**Cornell University**, Ithaca, NY. **Ph.D.** Operations Research and Information Engineering, August 2017. GPA 4.0/4.33. Advised By: David P. Williamson **Harvey Mudd College**, Claremont, CA. **B.S.** Mathematics with High Distinction, May 2012. GPA 3.7/4.0.

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

Publications	Jacob Feldman, **Alice Paul**, and Huseyin Topaloglu. Technical Note: Assortment Optimization with Small Consideration Sets. Forthcoming in *Operations Research*, 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.
Under Revision	**Alice Paul**, Daniel Freund, Aaron Ferber, David Shmoys, and David Williamson. Budgeted Prize-Collecting Traveling Salesman and Minimum Spanning Tree Problems. Under major revision for *Mathematics of Operations Research*. Jacob Feldman and **Alice Paul**, Relating the Approximability of the Fixed Cost and Space Constrained Assortment Problems. Under major revision for *Production and Operations Management*.
Submitted	Amariah Becker and **Alice Paul**. Minimum Makespan Vehicle Routing in Trees. Daniel Freund, Ashkan Norouzi-Fard, **Alice Paul**, Shane Henderson and David B. Shmoys. Data-Driven Rebalancing Methods for Bike-Share Systems.
Invited Presentations	"Prize-Collecting TSP with a Budget Constraint," International Symposium on Math Programming, 2018. "Data-Driven Optimization for Bike-Share Systems," 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 (*Upcoming)	***Co-Instructor, Statistics is Everywhere** First-year seminar course intorudcing students to various applications of statistics. Brown University, Fall 2019. ***Co-Instructor, Probability, Statistics, and Machine Learning: Advanced Methods** Statistics-based data science course for masters students. Brown University, Spring 2019. **Co-Instructor, Probability, Statistics, and Machine Learning: Advanced Methods** First version of a statistics-based data science course for masters students. Brown University, Spring 2018. **Instructor, Engineering Applications of Operations Research** Intro to operations research course with 70 undergraduate students. Cornell University, Fall 2016. **Instructor, Optimization II** Summer course with 8 undergraduate students and 1 masters student. Cornell University, Summer 2015. **Teaching Assistant, Optimization II** Led two recitations with around 50 students combined. Cornell University, Spring 2014.
Other Experience	**GE Summer Intern** Summer 2014 Complex Systems Engineering Group Worked with the oil and gas business departments to manage inventory levels and improve efficiency of the supply chain. Created online data visualization tools for business leaders to see current and past inventory levels and turnover. **Animating Computational Biology Algorithms** Summer 2011 Professor Alexander Schleip, Rutgers DIMACS REU Developed animations for bioinformatics algorithms including a naive prefix tree construction, naive suffix tree construction, and Ukkonens algorithm. Animations are now used in a Rutgers computational biology course. **Logic Circuit Sketch Recognition** Summer 2010 Professor Christine Alvarado, HMC CS Department Developed sketch recognition software designed to provide users with an intuitive system for sketching, editing, recognizing, and simulating logic circuits in a tablet environment. Specifically developed Hover Widgets, a tool that enables editing and correction by recognizing hover space activity of the stylus. Software is used in an introductory computer science course.
Service Activities	Brown Data Science Colloquium Organizer (Fall 2017 - Fall 2018) ORIE Graduate Association President (Spring 2014 - Spring 2016) Undergraduate mentor with CUMentor (Fall 2012 - Spring 2015) Workshop Leader, Expanding Your Horizons (April 2013 and April 2014)
Reviewer	Algorithmica, Operatiosn Research Letters, Mathematical Programming, SIAM Journal of Discrete Mathematics, Probability in the Engineering and Informational Sciences.
References	Available upon request.