

- EDUCATION**
- MIT**, Cambridge, MA *Sept. 2011 – Aug. 2015*  
*PhD*, Operations Research Center  
 Dissertation: “Analytics for Improved Cancer Screening and Treatment”  
 Thesis Supervisor: Dimitris Bertsimas
- University of Maryland**, College Park, MD *Sept. 2006 – May 2010*  
*Bachelor of Science*, Computer Science (summa cum laude)  
*Bachelor of Science*, Mathematics (summa cum laude, high honors)
- ACADEMIC POSITIONS**
- University of Michigan Ross School of Business**, Ann Arbor, MI *July 2017 – present*  
*Assistant Professor*
- MIT Sloan School of Management**, Cambridge, MA *Sept. 2015 – May 2017*  
*Postdoctoral Fellow and Lecturer*
- MIT Operations Research Center**, Cambridge, MA *Sept. 2011 – Aug. 2015*  
*Research assistant*
- JOURNAL PUBLICATIONS**
12. “An Applied Informatics Decision Support Tool for Mortality Predictions in Cancer Patients,” with D. Bertsimas, E. Chen, A. Elfiky, E. Gibson, A. Orfanoudaki, C. Pawlowski, A. Weinstein, and Y. Zhuo. To appear in *JCO Clinical Cancer Informatics*.
  11. “What Works Best When? A Systematic Evaluation of Heuristics for Max-Cut and QUBO,” with I. Dunning and S. Gupta. To appear in *INFORMS Journal on Computing*.
    - Special Recognition for the 2016 INFORMS Computing Society Student Paper Prize
  10. “Optimal healthcare decision making under multiple mathematical models: Application in prostate cancer screening,” with D. Bertsimas and T. Trikalinos. *Health Care Management Science*, 21(1), 105–118, 2018.
  9. “An Analytics Approach to Designing Combination Chemotherapy Regimens for Cancer,” with D. Bertsimas, A. O’Hair, and S. Relyea. *Management Science*, 62(5), 1511–1531, 2016.
    - Winner of the 2013 William Pierskalla Best Paper Award
  8. “Tenure Analytics: Models for Predicting Research Impact,” with D. Bertsimas, E. Brynjolfsson, and S. Reichman. *Operations Research*, 63(6), 1246–1261, 2015.
  7. “A Course on Advanced Software Tools for Operations Research and Analytics,” with I. Dunning, V. Gupta, A. King, J. Kung, and M. Lubin, *INFORMS Transactions on Education*, 15(2), 169–179, 2015.
  6. “Comparison of Heuristics for the Colorful Traveling Salesman Problem,” with A. Raiconi, R. Cerulli, M. Gentili, B. Golden, and S. Chen, *International Journal of Metaheuristics*, 2(2): 141–173, 2013.
  5. “Empirical Analysis of the Effect of Residents on Emergency Department Treatment Times,” with D. Anderson, B. Golden, M. Harrington, and J. M. Hirshon, *IIE Transactions on Healthcare Systems Engineering* 3(3), 171–180, 2013.

4. “The Impact of the Residency Teaching Model on the Efficacy of the Emergency Department at an Academic Center,” with D. Anderson, B. Golden, M. Harrington, and J. M. Hirshon, *Socio-Economic Planning Sciences* 47(3), 183–190, 2013.
3. “Statistical Constraints on Binary Black Hole Inspiral Dynamics,” with C. Galley, F. Herrmann, M. Tiglio, and G. Guerberoff, *Classical and Quantum Gravity* 27(24), 245007, 2010.
2. “The Effective Application of a New Approach to the Generalized Orienteering Problem,” with B. Golden, *Journal of Heuristics* 16(3), 393–415, 2010.
  - Winner of the 2010 INFORMS Undergraduate Operations Research Prize
1. “Integrating Post-Newtonian Equations on Graphics Processing Units,” with F. Herrmann, M. Bellone, G. Guerberoff, and M. Tiglio, *Classical and Quantum Gravity* 27(3), 032001, 2010.

ARTICLES  
SUBMITTED

“Clinical Benefit, Toxicity and Cost of Metastatic Breast Cancer Therapies: Systematic Review and Meta-analysis,” with D. Bertsimas and L. Vahdat. Submitted to the *Journal of the National Cancer Institute*.

ARTICLES IN  
PREPARATION

“Model Robustness,” with D. Bertsimas and V. Mišić. *Targeted for Operations Research*.

“The Price of Simplicity in Personalized Screening Strategies.” *Targeted for Management Science*.

DISSERTATION

“Analytics for Improved Cancer Screening and Treatment,” MIT Operations Research Center, 2015.

OTHER  
PUBLICATIONS

“Black Hole Simulations with CUDA,” with F. Herrmann and M. Tiglio, *GPU Computing Gems Emerald Edition (W. Hwu, ed.)*, Morgan Kaufmann, 103–111, 2011.

“Comparison of Metaheuristics,” with B. Golden, *Handbook of Metaheuristics (M. Gendreau and J. Potvin, eds.)*, Springer, 625–640, 2010.

“Comparison of Heuristics for Solving the GMLST Problem,” with Y. Chen, N. Cornick, A. Hall, R. Sahajpal, I. Yahav, and B. Golden, *Proceedings of the 9th INFORMS Telecommunications Conference*, 191–217, 2008.

“The Generalized Traveling Salesman Problem: A New Genetic Algorithm Approach,” with B. Golden, *Proceedings of the 10th INFORMS Computing Society Conference*, 165–181, 2007.

INVITED  
PRESENTATIONS

**Price of Simplicity in Personalized Cancer Screening**

2017 INFORMS Annual Meeting, Houston, TX

Oct. 2017

**Designing Drug Therapies for Cancer**

University of Michigan, Ross School of Business

Mar. 2017

University of Michigan, College of Engineering

Feb. 2017

Georgia Institute of Technology, College of Engineering

Feb. 2017

University of California Los Angeles, Anderson School of Management

Feb. 2017

Yale University, Yale School of Management

Feb. 2017

Boston College, Carroll School of Management

Jan. 2017

University of Maryland, Robert H. Smith School of Business

Jan. 2017

University of North Carolina Chapel Hill, Kenan-Flagler Business School

Jan. 2017

University of California San Diego, Rady School of Management	Jan. 2017
Northwestern University, McCormick School of Engineering	Jan. 2017
2016 INFORMS Annual Meeting, Nashville, TN	Nov. 2016
MIT Sloan School of Management, Operations Management Seminar	Oct. 2016
INFORMS Healthcare 2015, Nashville, TN	July 2015
2013 INFORMS Annual Meeting, Minneapolis, MN	Oct. 2013
INFORMS Healthcare 2013, Chicago, IL	June 2013

**Optimal Screening Under Multiple Mathematical Models**

POMS 27th Annual Conference, Orlando, FL	May 2016
2015 INFORMS Annual Meeting, Philadelphia, PA	Nov. 2015
2014 INFORMS Annual Meeting, San Francisco, CA	Nov. 2014
POMS 25th Annual Conference, Atlanta, GA	May 2014

AWARDS

**Special Recognition for the INFORMS Computing Society Student Paper Prize** (Nov. 2016)

**Course Central's Top 50 MOOCs of All Time** recognition for *15.071x: The Analytics Edge*, a Massive Open Online Course (MOOC) I developed as a PhD student jointly with Sloan faculty/instructors and four other PhD students (July 2016)

**William Pierskalla Best Paper Award**, an award for the top healthcare management science paper worldwide (Oct. 2013)

**NSF Graduate Research Fellowship Program Award** (Mar. 2012)

**INFORMS Undergraduate Operations Research Prize**, an award for the top undergraduate operations research paper worldwide (Nov. 2010)

**Barry M. Goldwater Scholarship**, an award for the top 278 U.S. undergraduate researchers in science, mathematics, and engineering (Mar. 2009)

MBA TEACHING EXPERIENCE

*TO 640: Big Data Management Tools and Techniques* Jan. – Feb. 2018  
 Delivered four sections of this Ross MBA elective course on software tools for big data management. **Teaching evaluation: 4.7/5.0 (170 students).**

*15.071 The Analytics Edge* Feb. – May 2017  
 Delivered (with Prof. Robert Freund) two sections of this Sloan MBA elective course on analytics. **Teaching evaluation: 4.3/5.0 (247 students).**

*15.060 Data, Models, and Decisions* Sept. – Dec. 2016  
 Delivered two sections of this Sloan MBA Core course on quantitative methods. **Teaching evaluation: 4.4/5.0 (120 students).**

*15.071 The Analytics Edge* Feb. – May 2016  
 Delivered (with Prof. Robert Freund) two sections of this Sloan MBA elective course on analytics. Co-developed 13 new lectures for the course. **Teaching evaluation: 4.5/5.0 (155 students).**

OTHER TEACHING EXPERIENCE

*15.003: Analytics Software Tools* Sept. 2016  
 Developed and delivered a 3-hour module on data wrangling with dplyr in R.

*15.S60 SSIM: Software Tools for Operations Research* Jan. 2015  
 Developed and delivered a 3-hour module on network analysis in R.

*15.071x The Analytics Edge* Mar. 2013 – May 2014  
 Co-developed a Massive Open Online Course (MOOC). Curated 14 datasets/associated materials, co-developed three lectures, and developed and videoed two recitations.

	<p><i>15.S60 SSIM: Software Tools for Operations Research</i> <span style="float: right;"><i>Jan. 2014</i></span>          Developed and delivered a 3-hour module on data wrangling in base R.</p> <p><i>Teaching Assistant: 15.071 The Analytics Edge</i> <span style="float: right;"><i>Feb. – May 2013</i></span>          Graded assignments and developed and delivered recitations.</p> <p><i>15.S60 SSIM: Software Tools for Operations Research</i> <span style="float: right;"><i>Jan. 2013</i></span>          Developed and gave 3-hour modules on advanced R and distributed optimization.</p>
CASE STUDIES DEVELOPED	<p>“Organ Allocation at the National Paired Kidney Exchange,” with D. Gamarnik and I. Ashlagi.</p>
SERVICE	<p><b>Session chair:</b> INFORMS Annual Meeting (2015, 2017)</p> <p><b>Reviewer:</b> Applied Soft Computing, Cancer Research, Computers &amp; Operations Research, INFORMS Transactions on Education, Management Science, MSOM, MSOM Healthcare SIG, Operations Research, Production and Operations Management</p> <p><b>Competition Judge:</b> Pierskalla Award (2014, 2017)</p>
STUDENTS SUPERVISED	<p>Jiaxin Liang (2017 – present): PhD student co-advised with Stefanus Jasin</p> <p>Kexin Jiang (2018 – present): master’s student in biostatistics</p>
OTHER EXPERIENCE	<p><b>Google</b>, New York, NY  <i>Software Development Engineer Intern</i> <span style="float: right;"><i>May – Aug. 2011</i></span>          Implemented validation framework for predictions published by Google AdWords.</p> <p><b>Enertaq, Inc.</b>, Chevy Chase, MD  <i>Co-founder and Chief Technology Officer</i> <span style="float: right;"><i>Jan. – Dec. 2010</i></span>          Co-developed a novel control-theoretic approach to providing electricity grid reliability via demand response. Designed and implemented a distributed software system, managing a small development team.</p> <p><b>Microsoft Corporation</b>, Redmond, WA  <i>Software Development Engineer Intern</i> <span style="float: right;"><i>May – Aug. 2008</i></span>          Implemented UI and cache optimization projects shipped in Microsoft Office 2010.</p>
OTHER	<p>Expert software developer with professional experience          Elected community moderator on Stack Overflow          Hobbies: Tennis, competitive bridge</p>
LAST UPDATED	<p>May 9, 2018</p>