

Cassidy K. Buhler

Education

- 2019–2024 (expected) Ph.D. Business Administration – Operations & Business Analytics Concentration
Advisor: Hande Y. Benson
Drexel University, Philadelphia PA
- 2015–2019 B.S Mathematics – Statistics Emphasis
University of Utah, Salt Lake City UT

Research

Nonlinear optimization, machine learning, computational optimization

Papers

- Buhler C. K.**, Benson H. Y., Shanno D. F. (2021). *Regularized Step Directions in Conjugate Gradient Minimization for Machine Learning*. In preparation for submission to *INFORMS Journal on Optimization*. (Expected completion date July 1, 2021)
- Buhler C. K.**, Terry R. S., Link K. G., Adler F. R. (2021). *When does adaptive therapy work? Comparing cancer treatment strategies across mathematical models and outcome objectives*. Under first round of review at *Mathematical Biosciences and Engineering*.
- Buhler C. K.**, Benson H. Y. (2020). *Efficient Solution of Portfolio Optimization Problems via Dimension Reduction and Sparsification*. Technical report. Drexel University, Philadelphia PA, USA.

Presentations

- 2020 INFORMS Annual Meeting. **Buhler C. K.**, Benson H. Y. *Efficient Solution of Portfolio Optimization Problems via Dimension Reduction and Sparsification*.
- 2020 Drexel Computer Science Theory Reading Group. **Buhler C. K.** *Portfolio Optimization*.
- 2020 Cancer Adaptive Therapy Models (CATMO). Adler F. R., **Buhler C. K.** *Do models matter? Establishing the conditions for adaptive therapy to control growth and delay emergence of resistance in cancer*.
- 2019 Undergraduate Research Symposium. **Buhler C. K.**, Terry R. S., Link K. G., Adler F. R. *Mathematical modeling of adaptive therapy in prostate cancer*.
- 2019 Huntsman Cancer Institute Adaptive Therapy Symposium. Adler F. R., **Buhler C. K.** *Why I'm wearing Kevlar*.

Teaching

- 2019–Present Recitation Instructor, Drexel University
○ MIS 200: Management Information Systems
- 2019–Present Teaching Assistant, Drexel University
○ BSAN 360: Programming for Data Analytics
○ OPM 200: Operations Management
○ OPM 341: Supply Chain Management
○ OPR 320: Linear Models for Decision Making
○ STAT 201: Intro to Business Statistics
○ STAT 202: Business Statistics II
○ STAT 205: Statistical Inference I
○ STAT 206: Statistical Inference II

- 2019 Utah Prison Education Project Tutor, Timpanogos Women's Correctional Facility
Tutored students who are incarcerated in a Salt Lake Community College math course.
o MATH 1030: Intro to Quantitative Reasoning

Awards & Scholarships

- 2021 Teaching Assistant Excellence Award – Highly Commended, Drexel University
For graduate students who “exhibit exemplary commitment to student learning”. There were over 50 nominations and highly commended is an award finalist.
- 2019 Undergraduate Research Scholar Designation, University of Utah
For undergraduate students who have completed two semesters of research, have presented in the Undergraduate Research Symposium, and published research in the Undergraduate Research Journal.
- 2019 Research Experience for Undergraduates, University of Utah
This grant was for undergraduate students conducting research with a faculty member from the mathematics department.
- 2015-2018 Honors at Entrance Scholarship, University of Utah
Full tuition scholarship awarded to the top scholar at each Utah high school, based on GPA and ACT score.
- 2015 Utah Centennial Scholarship for Early High School Graduation, State of Utah
Scholarship awarded to Utah residents who have graduated high school early.