

Cassidy K. Buhler, Ph.D.

✉ cassidy.buhler@gmail.com

in cassie-buhler

🐙 cassiebuhler.github.io/

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EDUCATION

2024	Drexel University Ph.D. Operations & Business Analytics <i>Computational Data Science Minor</i>	Philadelphia, PA
2019	University of Utah B.S. Mathematics <i>Statistics Emphasis</i>	Salt Lake City, UT

EMPLOYMENT

Doctoral Research Fellow 09/2019 – 06/2024

Drexel University | Department of Decision Sciences & MIS

- Led research projects that applied operations research and optimization methodologies to tackle challenges in machine learning and biodiversity conservation.
- Served as an instructor and TA for 25+ undergraduate and graduate (MBA, Executive MBA, PhD) courses across various disciplines (statistics, business analytics, operations research, operations management, MIS).
- First-authored 5 papers (2 published, 1 under review, 2 in preparation) and delivered presentations at 8 conferences; Earned 2 student-nominated teaching awards and course evaluation scores above department/college averages.

Research Assistant 08/2018 – 07/2021

University of Utah | Department of Mathematics

- Collaborated on an interdisciplinary team to better understand the response of castration-resistant prostate cancer under various treatment regimens.
- Formulated mathematical models with differing mechanism complexity to simulate biological dynamics of prostate cancer; Evaluated modern treatment regimens under this scheme.
- First-authored a journal publication to disseminate findings to academic and medical audiences.

Computer Scientist (Intern) 05/2018 – 08/2018

United States Air Force | Hill Air Force Base

- Conducted research related to improving software for USAF aircraft in the Software Engineering Group.
- Executed data analysis, cluster analysis, and data visualization; Presented and delivered insights to team leadership.

SKILLS

PROGRAMMING

Language	Libraries/Packages/Toolboxes
PYTHON	PyTorch TensorFlow Pandas BeautifulSoup scikit-learn Keras Seaborn Google Earth Engine
R	tidyverse ggplot rgdal raster rgeos SDMTools deSolve
MATLAB	Deep Learning Statistics & Machine Learning Optimization Financial Computer Vision

OPTIMIZATION SOFTWARE

Software	Applications
GUROBI	Quadratic Programming Linear Programming
Pyomo	Mixed-Integer Nonlinear Programming Derivative-Free Optimization
CVX	Convex Optimization
CPLEX	Integer Programming Linear Programming
AMPL	Nonlinear Programming

GRADUATE COURSEWORK

Subject	Courses
Comp Sci	Data Structures & Algorithms Deep Learning AI Machine Learning Data Mining
Data Science	Data Acquisition & Pre-Processing Data Analysis & Interpretation
Statistics	Statistical Inference Multivariate Analysis Time Series Analysis
Applied Math	Nonlinear Programming Linear Programming Stochastic Optimization Math Econ Game Theory