





Cassidy K. Buhler (she/her)

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ABOUT

I'm a Ph.D. candidate on the job market for a research position (e.g. post-doc, applied scientist, research scientist) and am particularly interested in roles which address environmental challenges using AI and ML.

EDUCATION

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

EMPLOYMENT

2019 – Present	Doctoral Research Fellow <i>Department of Decision Sciences & MIS</i>	Drexel University
<ul style="list-style-type: none">• Applied optimization methods and models to address challenges in machine learning and land conservation.• Developed an open source decision-making tool for spatial conservation planning using an optimization framework that minimizes a species' predicted extinction risk.• Designed an optimization algorithm that required less iteration counts to solve large-scale machine learning problems, and implemented into software for widespread use.• First-authored 5 papers and delivered research presentations at 8 conferences.		
2019 – Present	Instructor & Teaching Assistant <i>Department of Decision Sciences & MIS</i>	Drexel University
<ul style="list-style-type: none">• Served as an instructor for 4 classes and 2 workshops, and as a TA for 25+ classes.• Created and delivered instructional materials for BS, MS, MBA, Executive MBA, and PhD students.• Earned 2 student-nominated teaching awards and achieved course evaluation scores above department/college averages.		
2018 – 2021	Math Biology Research Assistant <i>Department of Mathematics</i>	University of Utah
<ul style="list-style-type: none">• Developed math models to study the response of castration-resistant prostate cancer under various treatment regimens.• Simulated biological dynamics as differential equations, formulating models with differing mechanism complexity.• Evaluated modern treatment regimens under this scheme and disseminated findings to academic and medical audiences.		
2018	Computer Scientist Intern <i>Hill Air Force Base</i>	United States Air Force
<ul style="list-style-type: none">• Conducted research related to improving software for USAF aircraft in the Software Engineering Group.• Hired under the Premier College Intern Program and earned a position in the PALACE Acquire program.		

SKILLS

PROGRAMMING

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

COURSEWORK

Subject	Courses
Computer Science	Data Structures & Algorithms Deep Learning Artificial Intelligence 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