Cassidy K. Buhler (she/her)

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EDUCATION

2024	**Ph.D. Operations & Business Analytics**	**Drexel University**
	Minor: Computational Data Science	Philadelphia, PA
	Expected Graduation: June 2024	

2019	**B.S. Mathematics**	**University of Utah**
	Statistics Emphasis	Salt Lake City, UT

EMPLOYMENT

2019 – Present — **Doctoral Research Fellow** — **Drexel University**
Department of Decision Sciences & MIS

- 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 fewer iteration counts to solve large-scale machine learning problems and implemented it into software for widespread use.
- First-authored 5 papers and delivered research presentations at 8 conferences.

2019 – Present — **Instructor & Teaching Assistant** — **Drexel University**
Department of Decision Sciences & MIS

- Served as an instructor for 4 classes and 2 workshops, and as a TA for 25+ classes.
- Created and delivered instructional materials for undergraduate, MS, MBA, Executive MBA, and PhD students in statistics, business analytics, operations research, operations management, and MIS courses.
- Earned 2 student-nominated teaching awards and achieved course evaluation scores above department/college averages.

2018 – 2021 — **Math Biology Research Assistant** — **University of Utah**
Department of Mathematics

- 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** — **United States Air Force**
Hill Air Force Base

- 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 │ SDMTools │ 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