Cameron Thieme

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PhD in mathematics with postdoctoral research in machine learning and data science. Keen to apply my technical skills in Python, machine learning, and statistics in industry. Skilled at solving practical problems and communicating complicated concepts to both technical and non-technical audiences. Very willing to relocate.

WORK EXPERIENCE
Post-Doctoral Associate - Rutgers University | New Brunswick, NJ   September 2021 - June 2023
- Research on the reliability of long-run predictions made by machine learning models (publication)
    - Performed Bayesian analysis to quantify accuracy of insights derived from data-driven dynamics
    - Trained and evaluated ~100K models of ecological systems in parallel on computing cluster (repo)
    - Implemented machine learning algorithm in Python (repo)
    - Applications in wide range of fields, from cellular biology to robotic control
- Taught probability: stochastic processes, Markov chains, Poisson processes, Brownian motion, Gaussian processes
- Mentored graduate students in dynamics and probability in weekly hour-long individual meetings

Mathematics Researcher and Lecturer - University of Minnesota | Minneapolis, MN   September 2015 - June 2021
- Conducted research in mathematical foundations of climate science in PhD thesis, leading to two publications (1, 2)
- Rigorously identified glaciation events through time series analysis of ice-core data to understand climate fluctuations
- Taught courses relevant to data science: linear algebra and multivariable calculus
    - Managed team of teaching assistants as primary lecturer
- Mentored undergraduates in programs focused on assisting underrepresented students in mathematics

Mentor, Voting Rights Data Institute - Massachusetts Institute of Technology | Cambridge, MA   June 2019 - July 2019
- Led student team to quantify degree of segregation in cities using topological data analysis in Python
- Identified gerrymandered congressional maps using Markov Chain Monte Carlo methods

ADDITIONAL DATA SCIENCE PROGRAMS AND PROJECTS
Math-to-Industry Bootcamp - Institute for Mathematics and its Applications | Minneapolis, MN   June 2021 - July 2021
- Forecasted hydroelectric power generation for Cargill to inform future investment strategies
- Identified useful business metrics, mined public data, developed models, presented to Cargill managers
- Performed time series analysis in Python using SARIMAX, deep learning, and other machine learning techniques
    - Predicted power 12 months in advance with under 4% error

Data Science for Finance Course - University of Minnesota | Minneapolis, MN   January 2018 - May 2018
- Consulted for local restaurant group to predict daily staffing requirements
- Developed machine learning models to forecast sales and classify necessary staffing levels in Python
    - Deep learning, random forests, and linear regressions trained on public data combined with private sales
- Presented sales forecasts and staffing recommendations to stakeholders; details restricted by NDA

TECHNICAL SKILLS
- Probability, statistics, Bayesian analysis, stochastic processes, Gaussian processes, deep learning, machine learning
- Python: scikit-learn, statsmodels, NumPy, SciPy, pandas, matplotlib, seaborn, PyTorch, XGBoost, etc.
- Parallel and cluster computing using Slurm and shell scripts
- SQL, Git, Docker, command line

EDUCATION
PhD in Mathematics - University of Minnesota | Minneapolis, MN   December 2018 - June 2021

MS in Mathematics - University of Minnesota | Minneapolis, MN   September 2015 - December 2018

BS in Mathematics - University of Southern California | Los Angeles, CA   August 2011 - May 2015
- 2015 Award for Excellence in Mathematics among Seniors
- President and Co-Founder of USC Math Club