Eric Cooper

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SKILLS

Programming Languages	Python, SQL, R, MATLAB
ML Tools & Packages	TensorFlow, Keras, Pandas, Numpy, Scipy, sklearn, matplotlib
Big Data Platforms	AWS Sagemaker, Apache Airflow, dbt
ML Skills	neural networks/deep learning, Bayesian decision, regression, classification

EXPERIENCE

Data Scientist, Teikametrics, Boston, MA **Jul 2020-Present**

- Member of the Artificial Intelligence team for an ecommerce company with the directive of designing, maintaining, and improving a digital advertising multi-channel auction bidder
- Provided modeling on various machine learning projects including deep learning time series forecasting and keyword recommendations as they pertained to the bidder
- Deployed and maintained ML models via Sagemaker and Airflow
- Communicated AI capabilities to internal stakeholders, customers, and engineers on other teams as part of AI Support
- Retrieved data for analysis and use in ML models by writing ETL transforms using SQL and dbt (data build tool)
- Published 5 ecommerce articles relating to the work of the AI team to be used as marketing materials to attract and retain customers

Insight Data Science Fellow, Insight Data Science, Boston, MA **Jan 2020- Jul 2020**

- Designed and deployed a Dash-based web app that allows government entities or other users to identify the location of probable lead water service lines in New York City
- Trained and evaluated logistic regression, random forest, and naive Bayes classifier models to assign probability of the existence of a lead water service line
- Cleaned and combined 600k+ New York City public housing records and U.S. Census data containing housing value, construction date, lot size, neighborhood demographics, and GIS data
- Engineered geospatial features to augment data acquired for use in water service line prediction

Instructor, Boston University, Boston, MA **Jun 2013 - Aug 2019**

- Taught 9 mathematics courses during summer semesters in Applied Statistics, Calculus I, Calculus II, Multivariable Calculus, Linear Algebra, Ordinary Differential Equations to classes of 20-35 students
- Integrated demonstrations in R into lesson plans for Applied Statistics course to teach regression, hypothesis testing, and ANOVA
- Collaborated with faculty to design semester curricula, including daily lectures, quizzes, and midterms and final examinations

Graduate Researcher, Boston University, Boston, MA **Sep 2012 - May 2019**

- Developed the mathematical framework to explain phenomena of randomly forced fluids observed by physicists
- Simulated randomly forced dynamical systems using Monte Carlo methods and parallel computing in MATLAB on a shared computing cluster
- Derived finite-dimensional models of stochastic processes to analyze statistics and behavior of randomly forced systems of partial differential equations resulting in 2 publications to journals focused on nonlinear science, engineering, and mathematics
- Served as President of the American Mathematical Society Boston University Graduate Student Chapter for one year, planning guest faculty lectures and professional development seminars on topics including journal submissions, CV writing, and summer workshop opportunities
- Organized graduate student dynamical systems seminar for one year for graduate students in the research group to share noteworthy results and papers and enhance presentation skills

EDUCATION

Ph.D. in Mathematics, Boston University **May 2019**
M.A. in Mathematics, Boston University **May 2014**
B.A. in Mathematics, University of Virginia **May 2012**