

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, Snowflake

ML Skills

neural networks/deep learning, Bayesian decision, regression, classification

EXPERIENCE

Data Scientist, Teikametrics, Boston, MA

Jul 2020-Present

- Collaborated with scientists and engineers to design, maintain, and enhance a multi-channel digital advertising auction bidder as a member of the Artificial Intelligence team for an e-commerce company
- Provided modeling on various machine learning projects including deep learning time series forecasting and keyword recommendations as they pertained to the auction bidder
- Deployed and maintained ML models via Sagemaker and Apache Airflow
- Investigated and 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 e-commerce 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

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