Richard Morse

Data Scientist @ BCG X

Contact

Address
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Website
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Skills

Python, SQL, R

Optimization modeling, Gurobi

Distributed computing, Spark, Azure, GCP, AWS

Data science, Machine learning, Statistical inference

Pandas, PySpark, Numpy, Scipy

Pytorch, Tensorflow, Sklearn

MS Office, Power BI, Tableau

C, C++, MATLAB, HTML/CSS

Interests

Golf, Scuba Diving, Running, Chess

Resourceful problem solver passionate about using mathematical analysis to make thoughtful decisions from big data. Excellent communicator dedicated to helping a variety of organizations understand and optimize their choices.

Education

2018-08 - 2022-05

Master of Science: Computer Science,

Bachelor of Arts: Computational and Applied Mathematics

Rice University - Houston, TX

- GPA: 3.92/4.00

Experience

2022-09 - Current

Data Scientist

Boston Consulting Group, Houston, TX (Python, SQL, Gurobi)

- Led development of store forecast ML model generating 1.2M annual revenue uplift for U.S. retail chain (**Gurobipy**)
- Designed SQL ETL pipeline for noisy client data, managing I/O between data warehouse and lake (**SQL, PySpark**)
- Deployed model to production overseeing code quality and integration checks (**Git, Azure**)
- Cut run overhead 50% via distributed computing (**Spark**)
- Presented results to non-technical C-suite stakeholders, creating robust measurement dashboards (**Excel, PowerBI**)
- Managed agile workflow, overseeing model sprint planning and project development roadmap (**Azure**)

2020-03 - 2022-05

Texas Clean Energy Coalition Researcher

Energy Foundation, Houston, TX (Python, Jupyter, Tableau)

- Formulated MIP model in Python (**Jupyter**, **Gurobi**) that would reduce cost of U.S. energy production by $4.7 billion
- Wrangled big data from NREL weather database (**MySQL**)
- Visualized results (**matplotlib, Tableau**) for general audience
- Led team of three in analyzing data and outlining project goals, lead-authoring research publication

2020-08 – 2021-05

TCH Heart Anomaly Detection

Medical Informatics Corp, Houston, TX (Python, AWS, R)

- Created anomaly detection ML model, predicting cardiac arrhythmias with over 90% accuracy
- Wrangled noisy data from 4 types of physiological time-series waveforms (**h5py, pandas, numpy, scipy**)
- Implemented deep learning via wavelet scattering networks (**Tensorflow**) and Gaussian mixture models (**Sklearn**)
- Deployed model to cloud for real-time training (**Spark, AWS**)
- Conducted sensitivity and error analysis (**R, MATLAB**)