Richard Morse

Data Scientist @ BCG X

Contact

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Website
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Skills

Python, SQL, PySpark, Pandas

Optimization modeling, MIP/LP, Gurobi, Pyomo

Distributed computing, Spark, Azure, GCP, AWS

PyTorch, Tensorflow

Project management, technical communication

MS Office, Power BI, Tableau

C, C++, R, 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 production planning model generating 1.2M annual revenue uplift for U.S. retail chain (**Gurobipy**)
- Designed ETL pipeline for noisy client data (**PySpark, SQL**)
- Deployed model to production overseeing code quality and integration checks (**Git, Azure**)
- Cut run overhead 50% via distributed computing (**Spark**)
- Created robust measurement dashboards (**Excel, PowerBI**)

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 undergraduates in outlining project goals
- Lead-authored research publication

2020-08 – 2021-05

TCH Heart Anomaly Detection

Medical Informatics Corp, Houston, TX (Python)

- Created model to predict and detect heart arrhythmias using 4 types of physiological time-series waveforms
- Wrangled noisy data (**h5py, pandas, numpy, scipy**)
- Labeled target events using wavelet scattering network (**tensorflow**) and Gaussian mixture models (**sklearn**)

2019-05 – 2022-05

NSF Computational Neuroscience Researcher

Baylor College Of Medicine, Houston, TX (C, C++, Python, R)

- Simulated and fit coupled neuron electrical activity in C++, Python, and NEURON via multiple shooting (**NAG**, **R**)
- Co-authored research publication