Richard Morse

Data Scientist at BCG

Contact

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Website
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Skills

Python, SQL, R

Optimization modeling, Gurobi, CPLEX, PuLP

Distributed systems, Spark, Hadoop, MapReduce

Cloud computing, AWS, GCP, Azure, Oracle

Project management, Technical communication

PyTorch, Tensorflow, Scikit-learn

MS Office, Power BI, Tableau

C, C++, MATLAB, HTML/CSS

Interests

Golf, 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, Computational and Applied Mathematics

Rice University - Houston, TX
- GPA: 3.92/4.00

Experience

2022-09 - Current

Data Scientist

Boston Consulting Group, Houston, TX
- Led development of store forecast ML model generating 1.2M annual revenue uplift for U.S. retail chain (**PyTorch**)
- Pipelined forecasts into mTSP routing model, cutting drive time 75% and employee overtime 20% (**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**)
- Developed robust measurement KPIs and performance evaluation dashboards (**PowerBI**)
- Presented to C-suite stakeholders (**Excel, Powerpoint**)

2020-03 - 2022-05

Research Scientist

Energy Foundation, Houston, TX
- Formulated MIP model in Python (**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
- Managed scrum workflow, overseeing agile sprint planning and project development roadmap (**Jira**)
- Led team of five, lead-authoring research publication

2019-08 – 2021-05

Applied Scientist

Medical Informatics Corp, Houston, TX
- 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**)