Matthew Campbell
Software Engineer

Passionate problem solver versed in programming, analytics, and math. I'll build anything and everything you need.

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matthewcampbell.io 🖥

EXPERIENCE

Operations Research Analyst, Associate
Booz Allen Hamilton

01/2021 - 02/2022

Achievements

- Orchestrated development of complex and modular Rshiny/Python app. Spearheaded organizational strategies via coding best practices and VCS with Git.
- Recommended improved resource schedule for critical client assets using Monte Carlo simulation, saving ~$4.5M/year.
- Implemented XGBoost regression model to supplant the above MC simulation, effectively speeding up runtime 500-fold with minimal loss in predictive accuracy.
- Developed novel Deep Reinforcement Learning model to act as a real-time, optimized dispatcher. Proof-of-concept yielded ~18% reduction in avg. response times.

Operations Research Analyst, Sr Consultant
Booz Allen Hamilton

06/2019 - 12/2020

Achievements

- Led small team of analysts in Python/Excel based project. Initiated practice of code-review sessions and Git VCS.
- Developed Streamlit dashboard for quick EDA of disparate datasets. Included normality and regression plots to ascertain variable relationships.
- Developed Tableau dashboard with novel geospatial visualizations to aid Fairfax County firefighters in understanding their emergency response time weak points.

Data Scientist
S3I LLC.

01/2018 - 06/2019

Achievements

- Led automated data ingestion effort. Developed ETL scripts and SQL database to collect data from the Protein Data Bank.
- Implemented and tested advanced scientific algorithms that attempt to predict protein topology and denaturation process.
- Developed high quality images for stakeholder presentation.

EDUCATION

M.S. Statisics + B.S. Mathematics
University of Arizona

08/2013 - 01/2018

SKILLS

Python | R | Machine Learning | React

HTML5/CSS/JavaScript | SQL | Linux

Discrete Event Simulation | GitHub | EDA

PERSONAL PROJECTS

Crown Clothing

- Developed e-commerce single page app with React + Redux, Firebase NoSQL DB, and authentication/payment integration.

Face Recognition App

- Deployed full-stack face recognition app with React, Node JS, PostgreSQL, and Heroku.

Everything Else:

- matthewcampbell.io

ACHIEVEMENTS

Booz Allen Titanium Award (06/2021)
For superlative support to multiple clients and being highly knowledgeable in a broad-range of analytic techniques.

Booz Allen Gold Award (12/2020)
For successfully taking on a leadership role at an early point in my career and for spearheading large-scale code base changes while maintaining project functionality.

Booz Allen Silver Award (12/2019)
For establishing robust, automated client data ingestion and novel, insightful data visualizations.

INTERESTS

Programming | DL/ML | Math | Teaching

Reading & Writing | Piano | Drums

Psychology | Meditation | Philosophy