Matthew Campbell

Data Scientist and Developer

Analytic problem solver versed in mathematics and development. Seeking new opportunities to creatively apply DS/ML/programming techniques to make an impact.

mmcampbell0@gmail.com ✉

(571) 430-5178 📱

Atlanta, GA 📍

matthewcampbell.io 🖥

github.com/matthewmcampbell

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 where their emergency response time weak points.

Data Scientist
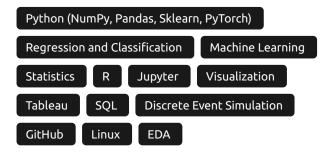S3I LLC.

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 (NumPy, Pandas, Sklearn, PyTorch)` `Regression and Classification` `Machine Learning` `Statistics` `R` `Jupyter` `Visualization` `Tableau` `SQL` `Discrete Event Simulation` `GitHub` `Linux` `EDA`

PERSONAL PROJECTS

Face Recognition App

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

Connect 4 AI App

- Deployed serverless Connect 4 app that pits user against self-play-learned RL-agent. PyTorch, Docker, AWS Lambda and API Gateway, Streamlit.

ML Article

- Explored intuition and implementation of Stacking CNN model in article: https://medium.com/@mmcampbell0.

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

`Math` `DL/ML` `Programming` `Teaching` `Reading & Writing` `Piano` `Drums` `Psychology` `Meditation` `Philosophy`