Drew Johnston

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Education

MS, Mathematics   **April 2022**
Brigham Young University   *Provo, Utah*
- GPA: 4.00, GRE: 170 Verbal Reasoning (99th Percentile), 168 Quantitative Reasoning (92nd Percentile)
- Relevant Coursework:

Modeling with Data and Uncertainty	Mathematical Analysis
Modeling with Dynamics and Control	Natural Language Processing
Deep Learning	Algorithms, Approximation and Optimization

BS, Applied & Computational Mathematics (ACME)   **December 2020**
Brigham Young University   *Provo, Utah*
- Concentration: Machine Learning
- GPA: 4.00, National Merit Scholar, Member of Phi Kappa Phi National Honor Society

Skills

- Predictive Modeling, Data Mining, Data Cleaning, Data Munging, Research, Web Crawling, Reading Documentation, Receiving Criticism, Presentation, Communication, Collaboration, Organization
- *Coding*: Python, R, C++, Apache Spark, SQL, NoSQL, MongoDB, Prolog, Jupyter, Git
- *Python Modules*: NumPy, SciPy, scikit-learn, Matplotlib, Pandas, PyTorch, BeautifulSoup, Requests, NLTK

Relevant Experience

Data Scientist   **May 2020 – Present**
Brigham Young University – Enrollment Services   *Provo, UT*
- Worked with a small team of data scientists to statistically identify and evaluate metrics for student success within a major. We leveraged techniques form graph theory, clustering, and classification models to determine optimal paths of success for university students based on their major and prior data. This provided ample opportunities for collaborative work as well as individual research and experimentation with a variety of statistical learning methods.
- Participated in daily reporting and brainstorming sessions to establish project direction and solve problems.
- Presented results and ideas for future work to a team of executives within Enrollment Services.

Undergraduate Researcher   **June 2019 – August 2019**
University of North Carolina at Wilmington - Department of Mathematics and Statistics   *Wilmington, NC*
- Selected as one of 8 students to join a summer Research Experience for Undergraduates program in collaboration with the National Science Foundation and Professors Cuixian Chen and Yishi Wang.
- Developed novel features for detecting atrial fibrillation in electrocardiogram readings.
- Achieved 97% detection accuracy using a random forest model with personally engineered features.
- Composed a [paper] detailing my methodology and results under the direction and advisement of Dr. Yishi Wang.
- Presented my results in research conferences at UNCW, UNCG, and Clemson University.

Data Science Research Assistant   **September 2018 – March 2020**
Brigham Young University – Department of Mathematics   *Provo, UT*
- Collaborated with a small team to validate proprietary metrics for stock cycle prediction with machine learning techniques.
- Combined in-house data with data from BYU's Bloomberg terminal to identify features to be used in anomaly detection for growth-based portfolio investment strategies.
- Presented research progress and results at BYU's Student Research Conference.

Relevant Projects

To read about my latest projects as well as my papers and project reports, please visit my personal website:
https://drewjohnston13.github.io/