Aaron Allen

Actively searching for a challenging and interesting position related to the fields of data science and software development. Strong background in Mathematics, Statistics, and Computer Science. Exceptional interpersonal, communication, and learning abilities. Prepared to surpass expectations.

Education

Aug 2017 - Dec 2019

Washington State University, WA, US

Masters of Science, Statistics

- Advanced Linear Algebra, Applied Linear Modeling, Data Science, Design of Experiments, Epidemiology and Biostatistics, Multivariate Theory and Analysis, Probability Theory, Statistical Computing, and Statistical Theory

Aug 2015 - May 2017

University of Idaho, ID, US

Bachelors of Science, Applied Mathematics

- Abstract Algebra, Analysis, Combinatorics/Graph Theory, Complex Variables, Computability, Data Structures, Differential Equations, Linear Algebra, and Numerical Methods

Projects

Apr 2018 - Dec 2019

Control Charting Using Machine Learning and a Waiting Period Approach Using Markov Chains

- Support Vector Data Description, Discriminant Analysis, and Logistic regression for improved classification of time series disease counts from a Bivariate Negative Binomial Distribution *(MLEs, Simulations, Markov Chains, Bayes, Time Series, Correlation)*
- Markov Chain transition matrices to develop a waiting period approach to classical control charting to increase classification accuracy

Oct 2019 - Nov 2019

Unsupervised Vehicle Classification with K-means and Hierarchical Clustering

- Clustering analysis to investigate vehicle classifications that would allow government authorities to establish taxation on heavy polluters *(Principal Component Analysis, Factor Analysis)*

Mar 2019 - May 2019

NFL Data Analysis and Prediction

- Cleaned large, messy NFL API data, aggregated and developed feature vectors, and used various linear modeling methods for game winning predictions with sufficient accuracy to establish betting odds (Linear Regression, Logistic Regression, Non-Linear Regression)

Work History

Aug 2017 - Dec 2019

Graduate Teaching Assistant

Washington State University, WA, US

- Lab Instruction, material creation, grading, and proctoring for statistics course with topics included Sampling, Correlation, Regression, Central Tendency, Hypothesis Testing, Independence, Goodness of Fit, and ANOVA
- Group and individual tutoring for every undergraduate Mathematics and Statistics course offered by the university

Personal Info

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Software

Python, R, SQL, Linux, Jupyter — Advanced

SAS, Matlab, Azure — Intermediate

Java, C — Basic

Packages

Numpy, Scipy, Pandas, Matplotlib, Seaborn, Scikit-learn, Tensorflow

Dplyr, Tidyr, e1071, ggplot, Kernlab, Shiny, Markdown

Certificates

Dataquest.io

- Python for Data Science: Fundamentals
- Machine Learning Fundamentals
- SQL Fundamentals
- Storytelling Through Data Visualization
- Exploratory Data Visualization
- Pandas and Numpy Fundamentals
- Elements of the Command Line

References

Provided Upon Request