Zachary Mackin

Zachary Mackin
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Education

University of California, Berkeley
May 2024

Bachelor of Arts in Data Science, Concentration in Applied Mathematics and Modeling

Bachelor of Arts in Statistics, Concentration in Computer Science

Relevant Coursework: Foundations of Data Science, Data Structures, Structure and Interpretation of Computer Programs, Probability and Mathematical Statistics in Data Science, Economic Models in Data Science, Calculus, Multivariable Calculus, Linear Algebra and Differential Equations

Experience

Chesapeake Legal Alliance / Data and Research Analyst
January 2022 - PRESENT
- Responsible for exploring and processing data on the land use loading rate within the Chesapeake Bay
- Developed a mapping application and additional explanatory materials to display this data

The Economist Intelligence Unit / Data and Research Analyst
August 2021 - January 2022
- Collaborating with team members to strengthen a model predicting a country's risk of defaulting and presented findings in a clear and concise manner
- Cleaned and analyzed data to compare to competing models through regression and simulation
- Utilized various Machine Learning techniques such as Logistic Regression and Principal Component Analysis

University of California, Berkeley / Instructor and Tutor
May 2021 - PRESENT

- Educator for introductory mathematics, statistics, and data science courses
- Learned how to communicate various difficult topics in an effective way to a variety of learners. Able to simplify and explain complicated subjects to an understandable level.

Skills & Projects

Programming Languages: Python, R, Java, SQL, Regex

Libraries and Frameworks: Numpy, Pandas, GGplot, SKLearn, Seaborn, Matplotlib

Skills: Regression: Linear, Multiple Linear, Logistic, Random Forest, Polynomial, SVR **Classification:** Random Forest, Naive Bayes, K-NN, SVM **Statistical Methods:** Hypothesis Testing, A/B testing, ANOVA, Bias/Variance **Other Skills:** Visualization, Data Cleaning, Feature Selection, Hyperparameter Tuning, Principal Component Analysis

Gitlet: Used Java to build a version control system that tracks and commits file changes, reverts and adds to and from previous versions, efficiently searches and tracks data, and creates branches

Country Risk Service: Using various data science tools (Python, Pandas, Numpy, Seaborn, SKLearn) to update a model that predicts when countries' national banks will default, and gives a rating. Led presenting these findings to the Economist's Intelligence Unit and the University of California, Berkeley's Data Science Discovery program