Brian Beadell

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SUMMARY

Master's candidate in Data Science, specializing in machine learning, statistical analysis, and ecological modeling using Python, R, and TensorFlow. Proficient in programming languages essential for ecological research, including Python and R, and versed in version control (git) and documentation (Markdown). Demonstrated experience in building reproducible data pipelines for complex modeling and data integration using innovative methods. Passionate about leveraging data science to tackle ecological challenges, particularly in forest health and sustainability. Ready to contribute to your team's success.

EDUCATION

EASTERN UNIVERSITY St. Davids, PA Master of Science in Data Science *expected completion April 2024*

● **Coursework**: R studio, Python, SQL, Tableau, ML, Tensorflow, Keras

PACIFIC UNIVERSITY Forest Grove, OR Bachelors of Biology *May 2020*

SKILLS

Programming: Python, R, SQL, PHP, CSS
Software: SPSS, MATLAB, SAS, Octave, Business Objects, Arena, Stata
Visualization: Tableau, ggplot, PowerBI
Databases: MySQL, CouchDb, Redis, MongoDB
Analytical Techniques: Machine Learning, Regression Analysis, Clustering
Other: Excel, *Big Data Technologies/Environments* – Hadoop, Spark

EXPERIENCE

APICAL CROP SCIENCE *Canby, OR Laboratory Manager* *November 2018 - present*

● **Soil Research:** Implemented and executed cellular respiration analyses on diverse soil types throughout Oregon, utilizing advanced statistical analysis and applied machine learning techniques to determine the effects of organic interventions on the soil microbiome composition and functionality.

● **Resource Allocation**: Efficiently directed resources towards equipment acquisition, fueling a significant 30% growth in laboratory operational capabilities.

● **Operational Efficiency**: Accomplished a notable 50% enhancement in operational efficiency and productivity through data-driven process optimizations.

● **Research & Development:** Adapted and standardized a range of laboratory methods through extensive research and successful trial replication, now regularly employed to furnish vital data to clients. This initiative empowers agronomists and growers with actionable insights for optimizing crop management strategies, leveraging statistical analysis and applied machine learning to refine agricultural practices.

PROJECTS

Implemented machine learning algorithms to predict the edibility of mushrooms based on their characteristics. Preprocessed the dataset to handle missing values and encode categorical variables. Utilized the K-Nearest Neighbors algorithm for imputation and trained RandomForestClassifier and LogisticRegression models for classification. Evaluated model performance using metrics such as accuracy, precision, and recall. Conducted exploratory data analysis and provided insights into mushroom classification insights and their implications across various domains.

Technologies Used: Python, pandas, numpy, scikit-learn