

Brian Butler

Contact Information

Location: Fairfax, VA 22030
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Skills

Machine Learning; TENSORS, Keras, XGBoost
Python programming language
SQL
Predictive Modeling
R Code
Incidents management

Education

Bachelor's Degree in Applied Statistics
Minor: Criminology and Math
George Mason University
Expected Graduation: May 2027
GPA: 3.5
Relevant Coursework: Calculus, Discrete Mathematics, Business Analytics 201, Computer Data Science 130

Websites, Portfolios, Profiles

LinkedIn
GitHub
LeetCode

Work Experience

Research Assistant

George Mason University - Fairfax, VA
February 2025 - Current

- Adhered to laboratory safety procedures to maintain compliance with quality control standards.
- Developed new protocols and improved existing laboratory processes.
- Analyzed results using analytical software and created reports.
- Completed AB testing and data analysis to improve research outcomes.
- Used SQL to extract data from databases and perform data analysis.

Summer Intern

Department of Commerce, American Samoa Government - Pago Pago, Eastern District, American Samoa
May 2025 - Present

- Supported economic research and data collection for local development projects.
- Analyzed economic trends and provided actionable recommendations that encouraged positive changes for approximately 2,000 businesses.
- Collaborated with team members on-site to analyze and interpret economic trends.
- Participated in community outreach and engagement initiatives.

Research Intern

Nonprofit Alliance Against Domestic & Sexual Violence - San Diego, CA
June 2024 - August 2024

- Utilized Python and Excel to analyze survey data, identifying resource gaps and informing a report on underserved populations.
- Conducted a statistical evaluation of a pilot intervention program using SPSS, demonstrating a 25% improvement in client outcomes.
- Built predictive models in Python to identify at-risk groups, supporting targeted outreach strategies.
- Designed data visualizations in Tableau for grant proposals, contributing to securing funding for two new initiatives.

Head Chapter Development Manager

Health Link Society - Remote, VA
December 2024 - May 2025

- Leading the expansion of National chapters by developing growth strategies and fostering collaboration among teams.
- Provided training for onboarding chapters as well as other managers.
- Delivering compelling presentations and driving alignment to achieve measurable outcomes.
- Used Tableau to create reports and dashboards for stakeholders with data from R.

Projects

Exploratory Data Analysis on Pre-Trial Data

February 2025 - Current

Used Python (Pandas, Seaborn, Matplotlib) to clean, transform, and visualize pre-trial datasets. Identified key variables and trends, and presented findings using dashboards and reports to Fairfax county.

Predictive Modeling for Nonprofit Alliance

June 2024 - August 2024

Built and validated machine learning models in Python (XGBoost) to identify at-risk groups from survey and demographic data. Supported targeted outreach and communicated results providing insights to create solutions to discovered issues.

College Acceptance Rate Prediction using Machine Learning

April 2024 - May 2024

Created classification models (Logistic Regression, Random Forest) to predict college acceptance rates. Performed feature engineering, evaluated model performance, and shared results with peers.
