

Brandon P. Pipher

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Experience

United States Census Bureau

Suitland, MD

SUPERVISORY MATHEMATICAL STATISTICIAN (GS-1529-13) / LEAD DATA SCIENTIST

Jul 2021 - Present

- Spearhead research and design for the 2030 Census Coverage Estimation program, leading data-driven projects leveraging advanced statistical and machine learning methodologies within the Decennial Statistical Studies Division.
- Conduct research for the [Continuous Count Study](#), enhancing intercensal population estimates through linkage of Census products, commercial data, and government administrative records. Apply statistical learning methods including Log-Linear and Latent Class modeling. Present findings at the [2024 Joint Statistical Meetings](#) and the 2024 Federal Committee on Statistical Methodology.
- Design and execute statistical programming for the [2020 Post-Enumeration Survey \(PES\)](#), developing an Inmover probability imputation model and applying advanced feature selection to improve the accuracy of coverage estimates.

Nations Lending Corporation

Independence, OH

QUANTITATIVE MODELING AND RESEARCH ANALYST

Sep 2020 - Jul 2021

- Partner with Risk Management, Compliance, and Product teams to create automated reports and dashboards, providing insights on Key Performance Indicators and Objectives and Key Results using statistical modeling and data science techniques.
- Deliver high-impact analytical summaries to senior leadership, developing flexible reporting solutions to drive strategic decision-making and monitor performance indicators.
- Built time series forecasting models using public data to predict quarterly mortgage loan origination volume, optimizing workforce allocation and reducing operational costs.
- Apply Natural Language Processing to analyze mortgage process documentation, uncovering bottlenecks and reducing closing times through machine learning-based workflow improvements.

Education

Kent State University

Kent, OH

MASTER OF SCIENCE IN APPLIED MATHEMATICS

Aug 2017 - Dec 2019

- GPA: 3.9
- Thesis: [Comparison of Regression Methods with Non-Convex Penalties](#)

University of Akron

Akron, OH

BACHELOR OF SCIENCE IN MATHEMATICS, MINOR IN STATISTICS

Aug 2013 - May 2017

- GPA: 3.6
- Graduated *cum laude*

Skills

Programming & Scripting	Python, R, SAS, SQL (Redshift, PostgreSQL, MS SQL Server), Bash
Machine Learning	Supervised & Unsupervised Learning, Natural Language Processing, Neural Networks
Statistical Expertise	GLM, ANOVA, Hypothesis Testing, Multiple Comparisons, Statistical Theory
Networks & Graph Theory	Community Detection, Path & Connectivity Algorithms, Graph Matching
Time Series & Forecasting	ARIMA, ETS, SARIMA, Dynamic Regression
Data Visualization	Dash, Shiny, PowerBI, Tableau, Quarto, Geopandas
Tech Stack	VS Code, Git, AWS (S3, EC2, EMR, SageMaker)