

Brandon P. Pipher

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Experience

United States Census Bureau

Suitland, MD

MATHEMATICAL STATISTICIAN (GS-1529-12)

July 2021 - Present

- Independently implemented assigned projects that required the application of mathematical and statistical theory for the Decennial Directorate's (ADDC) Decennial Statistical Studies Division's (DSSD) Sampling Branch.
- Engaged in research and development of the methodology for the 2030 Post-Enumeration Survey (PES). Incorporated administrative records and other Census data products to enhance and refine population estimates.
- Conducted research under the Continuous Count Study project which was built on the [2020 Administrative Record Census Simulation](#). Worked to improve and redesign population estimates for intercensal years and also evaluated Census coverage methods. Utilized various modeling methods such as Log-Linear modeling or Latent-Class modeling to produce estimates and imputations. Select preliminary findings will be presented at the [2024 Joint Statistical Meetings](#).
- Provided statistical programming support for the [2020 Post-Enumeration Survey \(PES\)](#). Performed feature selection and developed imputation models for the probability of being either an Inmover or Nonmover for the components of coverage estimation of the 2020 Census.

Nations Lending Corporation

Independence, OH

QUANTITATIVE MODELING AND RESEARCH ANALYST

Sept. 2020 - July 2021

- Collaborated with the Risk Management, Compliance, and Product teams to create automated reporting, dashboards, and generate analytic insights on Key Performance Indicators (KPIs) and to monitor Objectives and Key Results (OKRs).
- Regularly summarized findings into high-level results for presentation to senior management and other stakeholders. Incorporated customized and agile reporting to enhance insights and monitor key takeaways.
- Developed time series forecasting models leveraging publicly available data to predict quarterly mortgage loan originations. Utilized Natural Language Processing to gain novel insights into the mortgage life cycle to improve efficiency and reduce closing times.

Kent State University - Department of Mathematical Sciences

Kent, OH

ADJUNCT PROFESSOR

Aug. 2017 - Sept. 2020

- Instructor for Mathematics courses ranging from Algebra to Calculus.
- Lead the integration of a new course environment for the online Algebra for Calculus sequences.
- Hosted cross-regional faculty training seminar for knowledge sharing regarding a newly integrated learning environment.

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*
- Member of Phi Sigma Alpha: Buchtel College of Arts and Sciences Scholastic Honorary Society
- Member and Treasurer (2016-2017) of Pi Mu Epsilon: Mathematics Honorary Society (Ohio Nu Chapter)

Skills

Programming

Python, SAS, R, L^AT_EX, SQL, DAX, Power Query M, Regex, Tidyverse, Scikit-Learn, NumPy, Pandas, Shiny, Plotly, NLTK, Seaborn, Matplotlib, Bash, Dask, Geopandas

Tools

PowerBI, Tableau, JMP, Minitab, PostgreSQL, Microsoft SQL Server, AWS Sagemaker, Jupyter Notebook, Git, GoodData, Power Query, Visual Studio Code, Apache Spark, AWS S3, AWS EC2, PostgreSQL, Redshift