

Jacob Z. Eliason

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Based in Washington, DC, USA
US Govt Clearance Level: Secret

SUMMARY

Data scientist with 3+ years experience developing data solutions for public and private sector clients. Expertise in Bayesian statistics, causal inference, and survey research complemented by recent graduate coursework. Proven track record of high-quality statistical consulting and of maintaining production-grade code in client-facing roles.

EDUCATION

[The London School of Economics and Political Science](#)

M.Sc. Statistics

London, United Kingdom

Sep 2022 – Aug 2023

- Relevant coursework: Statistical Inference, Generalized Linear Modeling, Bayesian Machine Learning, Distributed Computing (used GCP), Deep Learning (used TensorFlow)
- Dissertation: [Estimating the Causal Effect of German Nuclear Plant Closures on Electricity Generation Using Gaussian Process Regression](#)

[Brigham Young University](#)

B.S. Statistics

Provo, UT, United States

Jan 2016 – Dec 2019

- Minors: Mathematics, Political Science
- Relevant coursework: Intro to Bayesian Statistics, Applied Bayesian Statistics, Analysis of Correlated Data

EXPERIENCE

[AvalonBay Communities](#)

Senior Data Scientist

Arlington, VA, USA

Apr 2024 – Present

- Developed ensemble predictive model for business process forecasting using Python, SQL, and AWS Lambda
- Provided statistical support throughout company for causal inference, A/B testing, and survey research

[Guidehouse](#)

Data Scientist – Senior Consultant

Arlington, VA, USA

Aug 2023 – Apr 2024

- Developed, deployed, and maintained the backend of a reporting tool for a US Department of State client in Python using Azure Cloud used by several hundred employees, following Agile development practices
- Contributed research to improve the factual accuracy of internal LLM tooling using LangChain and chain-of-verification prompting
- Used Python, Azure

[DevTech Systems, Inc.](#)

Statistician

Arlington, VA, USA

Feb 2022 – Aug 2022

- Wrote R code to apply statistical disclosure limitation methods with `sdcmicro` to agency data assets to satisfy k-anonymity and reduce risk

[United States Census Bureau](#)

Mathematical Statistician

Washington, DC, USA

Sep 2020 – Feb 2022

- Wrote and edited programs in SAS using SQL for production work on the [Survey of Income and Program Participation](#); responsibilities included sampling, weighting, and variance estimation
- Used SAS, SQL, R

[Y2 Analytics](#)

Data Analyst

Salt Lake City, UT, USA

Jan 2020 – Aug 2020

- Contributed to elections modeling effort by modeling education and turnout using hierarchical Bayesian model
- Conducted survey research projects for [corporate and municipal government clients](#) from start to finish: programmed questionnaires in Qualtrics, cleaned survey data using `y2clerk`, produced graphics using `ggplot2`, analyzed relationships using conjoint analysis and other statistical modeling tools, and wrote text for final deliverables
- Wrote new functions and corresponding unit tests for in-house R package which are still used years later by 10+ analysts

SKILLS

- Programming
 - Languages: Python, R, SQL, Stan
 - Version Control, Testing
 - Cloud: Azure, GCP
 - Scripting: Unix Shell
- Data Management & Engineering
 - Big Data: Databricks, PySpark
 - Pipeline Orchestration: Dagster, Airflow
- Artificial Intelligence & Deep Learning
 - Frameworks: TensorFlow, PyTorch
 - Architectures: CNN, RNN, transformer
 - Tooling: LangChain, Vector Databases, HuggingFace, AzureML
- Statistical Analysis & Machine Learning
 - Theory: Probability and inference, hypothesis testing, Bayesian methods, linear and non-linear modeling
 - Application: generalized linear models, time series, causal inference, supervised & unsupervised ML
 - NLP: text classification, named entity recognition (NER), question answering, summarization