

Jacob Z. Eliason

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

SUMMARY

I'm a data scientist with a background in Bayesian statistics and causal inference and recent experience with generative AI. During my graduate studies in 2023 I pursued coursework in deep learning and cloud computing to complement my background in traditional statistics. In my current role, I've developed Python-based automation tools in Azure Cloud following Agile development practices, demonstrating my ability to write production-grade code in a mature environment.

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)
- Project: [Comparing Deep Learning Approaches to Image Segmentation for Deforestation Detection](#)
 - Developed and evaluated deep learning models using Python and TensorFlow for segmenting satellite images
- Dissertation: [Estimating the Causal Effect of German Nuclear Plant Closures on Electricity Generation Using Gaussian Process Regression](#)
 - Employed causal inference methodologies and Bayesian machine learning modeling techniques to analyze energy data

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

Guidehouse

Data Scientist – Senior Consultant

Arlington, VA, USA

Aug 2023 – Present

- 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

Data Analyst Intern

Washington, DC, USA

May 2019 – Aug 2019

- 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
- 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