

Andrew Belz

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Education

Bachelor of Science: Statistics

Expected Graduation: April 2028

Brigham Young University, Provo, UT GPA: 3.98 (on a 4-point scale)

Relevant Coursework: Statistical Modeling, Multivariable Calculus, Differential Equations, Linear Algebra

Bachelor of Science: Data Science

August 2023 - December 2024 (Did not complete degree)

Brigham Young University - Idaho, Rexburg, ID

GPA: 4.0 (on a 4-point scale)

Relevant Coursework: Applied Linear Regression, Data Science Programming, Introduction to Databases

Relevant Experience

Undergraduate Research Assistant

May 2025 - Present

Brigham Young University, Provo, UT

Department of Mathematics

- Advised by Dr. Stephen McKean, we work to design and build graph-theoretic computational models with applications in neuroscience, the social sciences, and more.

Relevant Projects

Addressing Poverty and Crime in the U.S.

July 2024

Explored socioeconomic factors behind crime rates using data from the U.S. Census and FBI Crime Data Explorer.

Tools: R, tidyverse, ggplot2, R Markdown, Linear Regression, ANOVA

- Built and validated a multiple linear regression model revealing a strong correlation between poverty levels and state-level crime rates.
- Aggregated and cleaned multi-source data using tidyverse; standardized variables for robust statistical comparison.
- Applied ANOVA and Kruskal-Wallis tests to assess differences in poverty by race, identifying statistically significant disparities.
- Developed data visualizations in ggplot2 and compiled findings into a structured report using R Markdown.

UK Crime and Education Outcomes

June 2024

Analyzed relationships between regional crime rates and standardized test scores in England. Tools: R, tidyverse, ggplot2

- Designed and interpreted a linear regression model identifying a statistically significant relationship between educational outcomes and crime rates.
- Executed full data wrangling pipeline in R; cleaned, reshaped, and merged datasets from multiple UK sources.
- Created polished data visualizations with ggplot2 to support analytical conclusions.

Skills

- **Programming Languages:** Python, R, SQL
- **Statistical Techniques:** Regression, Hypothesis Testing, Experimental Design, Simulation
- **Software Tools:** Excel, Git, \LaTeX