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