

# Alan J Averett

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## EDUCATION

### Brigham Young University- Idaho

B.Sc. Data Science, Statistics; *Major GPA: 3.8/4.0*

Rexburg, ID

Apr 2020 - Dec 2023

- **Certifications:** Web and Computer Programming (3.7/4.0); Machine Learning (4.0/4.0)
- **Leadership:** Society of Hispanic Professional Engineers (SHPE), Data Science and AI Society

## EXPERIENCE

### WPA Intelligence

*Machine Learning Intern*

Washington D.C.

Jul 2022 - Nov 2022

- Created digestible reports for 80+ political campaigns by analyzing/visualizing voter data trends with machine learning models that predicted ideological disposition and turnout using **SQL** and **R's tidyverse**
- Decreased production time (1 hr to 1 min) by building an automated script **in SQL and R** to clean and transform voter data
- Increased accuracy and AUC for all future machine learning models (~ 1-3 percent) by using **GIS** data to categorize over 100 million records of voter data into 12 granularities of population density using **R's sf** and other geospatial libraries

### FamilySearch

*Statistics Intern*

Salt Lake City, UT

Sep 2023 - Dec 2023

- Eliminated 50+ anomalous entities in a worldwide initiative by **developing and automating** in-house tuned anomaly detection methods in **Python** for over 200k+ submissions of unstructured raw survey data
- Frequently delivered summaries of key findings of statistical analyses to the executive team

### Mathematics Department BYU-Idaho

*Chief Lab Manager*

Rexburg, ID

Mar 2023 - Sep 2023

- Led and coordinated data science society activities and meetings; mentored and supported project teams including weekly bootcamps to teach **data analysis/statistics and ML hyper parameter tuning**, over 6 teams of ~ 6-12 people each
- Managed, and trained all tutors for school-wide DS Lab, teaching **Pandas, NumPy, PySpark, SQL**, in **DataBricks**

*Teacher's Assistant*

May 2022 - Dec 2023

- **Business Statistics:** Tutored basic statistics concepts in a business related setting using **Excel**
- **DS Programming:** Tutored data analysis, statistics, and basic ML in **Python (Pandas, Sklearn) and SQL**
- **Data Wrangling and viz:** Tutored complex data analysis and visualization with **R tidyverse** (dplyr, ggplot2 etc.)
- **Big Data Programming:** Tutored big data computation and analysis with **PySpark and SQL** in **DataBricks**
- **Linear Algebra:** Tutored both non-computational and computational linear algebra with **Python's NumPy and SymPy**

## CONSULTING

### Baltimore Mission (Spanish Outreach)

*Technology Consultant and Regional Manager*

Baltimore, MD

Mar 2019 - Feb 2020

### Wilford Woodruff Papers

*Data Scientist*

Rexburg, ID

May 2023 - Dec 2023

- Provided actionable graphs and trends using **NLP** tools including **sentiment analysis** and unsupervised textual clustering alongside **time-series analysis** as part of the Wilford Woodruff production team in Python
- Delivered an **interactive web app** that cross-referenced religious texts with 19th century published journal entries by using a Bag-of-Words model to vectorize n-grams to find textual matches sorted by confidence using **Python's sklearn library**
- Created similarity algorithm by topic to model recommendations to increase user interaction time with company website

## SKILLS

- **Python:** Pandas, NumPy, Sci-kit Learn, PySpark, Polars, Keras / Tensorflow, BeautifulSoup4, DataBricks
- **R:** CAR, Mosaic, RMarkdown, Tidyverse (dplyr, tidyr, stringr, forcats, lubridate, purrr, etc.)
- **Visualization libraries:** Streamlit, ggplot2, Matplotlib / Seaborn, Plotly Express, Altair
- **Other Technical Skills:** Excel, Visual Basic for App. (VBA), SQL, MySQL, Git/GitHub, Quarto, LaTeX, Regex, Docker