

David J. Hansen

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Education

Bachelor of Science

Brigham Young University - Idaho

July 2025

Idaho (BYU-I)

- Bachelor of Science in Data Science, Minor in Mathematics.
- Relevant Coursework: Big Data, Machine Learning, Applied Linear Regression, Linear Algebra, Data Wrangling and Visualization.

Skills

- Programming & Tools: Python (Pandas, Scikit-learn, PySpark, Polars), R, SQL, Git/GitHub, Streamlit, Databricks, Shopify App Development (Basic), Excel.
- Data Science & Analytics: Machine Learning, Natural Language Processing, Data Wrangling, Predictive Modeling, Feature Engineering, Data Visualization.
- Mathematics: Linear Algebra, Regression Analysis, Partial Differential Equations, Statistical Tests.
- Soft Skills: Critical Thinking, Personal Communication, Mentoring, Problem Solving, Attention to Detail.

Academic Projects

Convenience Store Predictive Sales Model.

- Applied data wrangling, feature engineering and model training on large scale C-store transaction data.
- Incorporated additional data sets including census data to build features such as population density.
- Built a Streamlit app to show key performance indicators and top selling products.

Political Science Email Database

- Generated emails for publicly available names of Federal Government Employees.
- Performed email validation and verification using SMTP to provide email list to Political Science dpt.
- Collaborated as part of a 6-member team, leveraging GitHub to coordinate integration with overall data collection and automation.

Real Deals Home Décor Consulting

- Developed sales prediction model using historical transaction data for more accurate purchasing.
- Performed an analysis on jean vendors and identified an underperforming vendor leading to purchasing changes.
- Designed Shopify App leveraging the Shopify GraphQL admin API to pull and analyze inventory data.

AI for Musical Note Mapping

- Applied machine learning models to interpret note patterns from audio inputs.
- Implemented Fourier Transforms to process audio data into mel-spectrograms for faster performance.
- Engineered a database to hold songs and spectrograms for better performance.

Experience

Math Tutor

January 2020 - Present

Private Tutor, Mathnasium, BYU-I Mathlab, Teaching Assistant

Rexburg, ID

- Tutored high school, college, and elementary students in algebra, calculus, and statistics.
- Delivered personalized learning plans and virtual/in-person sessions and helped a student get a GED.
- Taught diverse learners with a strong focus on building foundational and advanced math skills.

Additional Work Experience

January 2018 - December 2020

Various Positions

Rexburg ID

- Farm Hand, Price Family Farms. Operated grain cart and was responsible for operational efficiency.
- Production Associate, Occasions Group. Finalized orders by catching defects and missing products. Responsible for shipping completed orders.
- Safety Officer, Head Waters Construction. Responsible for keeping job-site clean and free from hazards. Fixed minor defects and damage caused by contractors.