# WALKER HUGHES

Data Science Portfolio   707-484-5478   walkereveretthughes@gmail.com

## Education and Motivations

**University of San Francisco**                                                        **2025**
*M.S. in Data Science, focusing on Machine Learning Engineering*                        *San Francisco, CA*

**Brigham Young University**                                                            **2021**
*B.S. in Computational Mathematics, B.S. in Economics, Minor in Portuguese Studies, 3.82/4.00*   *Provo, UT*

**Motivations**: Data Scientist seeking roles in San Francisco Bay Area in Machine Learning Engineering and Data Analysis. Skilled in applied mathematics, machine learning, data visualization, and CI/CD.

**Skills and Tools**: Python (4 years), SQL (2 years), R (1 year), PySpark, Pandas, Numpy, APIs, Docker, Threading
**Relevant Coursework**: Machine Learning, Linear Algebra, Statistics and Inference, Applied Econometrics, Algorithms and Optimization

## Projects

### [Deployed App] Idiom.ai: Chatbot Game to Learn Foreign Language Idioms
- Built chatbot with GPT 3.5 Turbo to teach common language expressions in gamified learning experience.
- Utilized efficient prompt engineering to produce json objects containing foreign language idioms, examples of the idioms used in sentences for user context, and multiple choice options for correct semantics.

### [Deployed App] Yield Curve Dashboard
- Utilized GitHub Actions to automate CI/CD workflow of interest rate data scraped from US Treasury on daily basis.
- Implemented interactive Streamlit app to analyze yield curve behavior over time from 1990 to present.

### [Deployed App] Exploring Chaotic Behavior in Initial Value Problems with the Lorenz Equations
- Created interactive app to investigate how changes to initial conditions can alter the solutions to initial value problems.

## Experience

**WE Consulting, LLC**                                                                  **October 2023 - Present**
*Machine Learning Consultant*                                                           *San Francisco, CA*
- Built and deployed RAG application to query PDF documents with GPT 3.5 and LangChain vector stores for law firm client, saving estimated 100+ hours per year in manual research.
- Led development of recommendation model for products on client's online marketplace, improving baseline by +30%.

**Addepar**                                                                             **June 2022 - September 2023**
*Data Solutions Consultant*                                                             *San Francisco, CA*
- Built multiple data pipelines with Python/SQL to ETL financial data sets with millions of rows for new clients onboarding to the Addepar software via internal API.
- Collaborated with Product and Engineering teams to refine the onboarding process for clients' investment data.

**Cornerstone Research**                                                                **August 2021 - June 2022**
*Data Analyst*                                                                          *San Francisco, CA*
- Conducted in-depth economic research for five papers quantifying monetary damages in high-stakes, multi-million dollar commercial litigation cases, leading to favorable settlements.
- Utilized Latent Dirichlet Allocation and Information Retrieval to identify topics discussed in multiple years of marketing copy for one of the first expert reports leveraging NLP in litigation.
- Investigated inflation trends in in multi-terabyte database with R/SQL for report on competitive dynamics of online marketplaces during the COVID-19 pandemic.

**BYU Departments of Mathematics and Economics**                                        **January 2018 - May 2021**
*ML Research Assistant and Teaching Assistant*                                          *Provo, UT*
- Conducted image segmentation research on satellite images to estimate wildfire perimeters despite smoke occlusion.
- TA for Econometrics, Machine Learning for Economists, and Macroeconomics courses.
- Advised 75+ students on experiment design, model testing, and feature engineering for econometrics and machine learning projects of their choice.