

# JONATHAN WILDING

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## EDUCATION

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### B.S., Mathematics

Apr. 2018 - Apr. 2021

*Brigham Young University, Provo, UT*

- Software Engineering Emphasis

## SKILLS

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### Highly Proficient

Azure Data Lake	Data Factory	Databricks	Linear Algebra	SQL
Python	Pandas	Linux	Git	Data Structures

### Proficient

Snowflake	Data Warehousing	Cloud	Big Data	Data Modeling	NumPy	
Spark	MongoDB	JavaScript	HTML5	Vue.js	Tailwindcss	CSS

## EXPERIENCE

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### Junior Developer

Oct. 2021 - Present

*HCL Technologies, Sacramento, CA*

- Orchestrated data pipeline to automate ETL of customer data in Azure Data Factory.
  - Refined raw CSV customer data into cleansed and transformed columnar datasets, in a three tiered Delta Lake architecture, with Bronze, Silver and Gold tiered datasets.
  - The Bronze tables moved data into Azure Data Lake Storage Gen 2 and converted CSV to Parquet format for efficiency.
  - Silver Level contained the validated and transformed data of five separate tables. Used conditional expressions and table lookups to log and filter errors and invalid data entries.
  - The Gold tier table was created as an aggregate table by a series of queries and joins, to produce an ultra-refined table for analytics and machine learning.
- Generated dashboard of key performance indicators for customer data with Python in Databricks.
  - Wrote complex SQL queries to compile eight key performance indicators, and created over a dozen visualizations to communicate the story behind the data. Improved overall stakeholder understanding of the customer data.
- Predicted customer churn in Python using Pandas and Sklearn with a logistic regression model trained to oversample the minority class with SMOTE.
  - Compared the performance of training data with and without oversampling the minority class.
  - Assessed that by aggressively predicting customer churn, we can target the customers which are more likely to churn with retention programs.
  - Identified the features with the most significant coefficients in the churn model to direct potential retention programs.

### Web Development - Research Assistant

Sep. 2020 - May 2021

*Information Systems Dept., Brigham Young University, Provo, UT*

- Designed and produced a web application to test and analyze participant interruptive multitasking performance with A/B testing.
- Developed a full-stack, multiple-choice form creation and management system with Vue.js, Express.js and MongoDB.

**Machine Learning Support - Research Assistant**

Oct. 2019 - Jun. 2020

*Mechanical Engineering Dept., Brigham Young University, Provo, UT*

- Reduced run time by hours and enabled ML models to run remotely by centralizing computational resources to our high-performance server using JupyterHub and web protocols.

**Mongolian Teacher**

Sep. 2018 - Sep. 2019

*Missionary Training Center, Provo, UT*

- Taught Mongolian to groups of 6-10 missionaries in an immersive 10-week language course.
- Improved efficiency in planning by creating a website to centralize teaching resources and materials.

**Product Quality Control and Regulatory Teammate**

Jan. 2018 - Apr. 2018

*Golub Corporation, Schenectady, NY*

Jan. 2015 - Dec. 2015

- Automated nutrition label verification with a JavaScript web application for product category managers, saving roughly 30 seconds for each label while improving accuracy.
- Transformed data entry in Excel from a 2-minute process to 15 seconds, with VBA scripting.