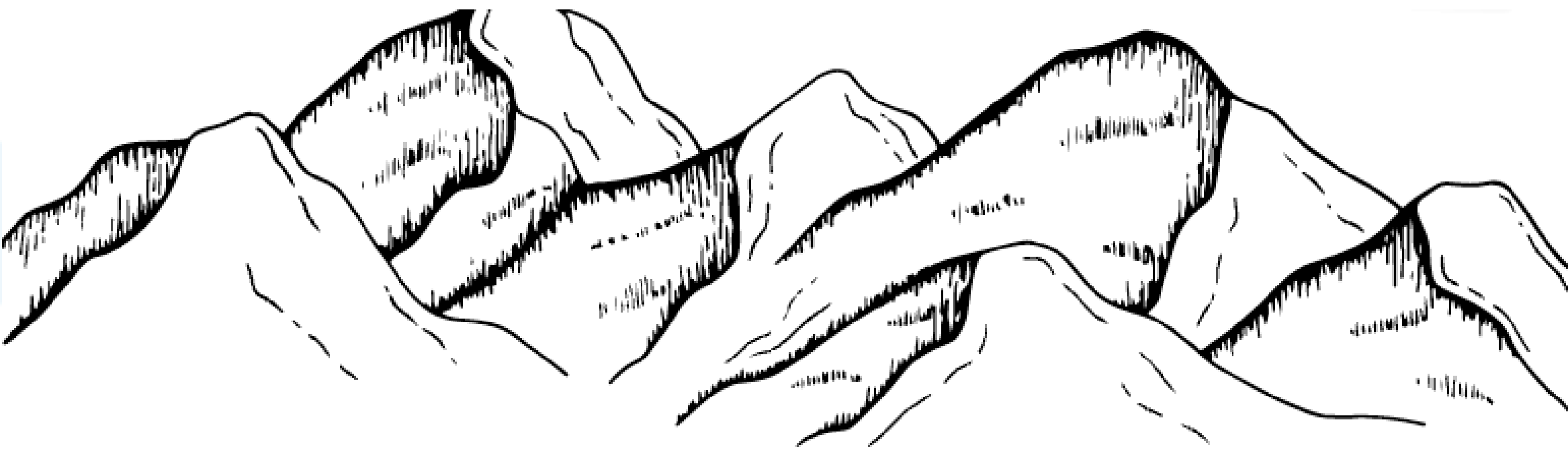


# Understanding Analytics at BYU-I

J. Hathaway

Data Science Program Chair



[datascience@byui.edu](mailto:datascience@byui.edu)

## Business Analyst

- Business-focused
- PowerBI and SQL
- Excel, R, Python



## Data Analyst

- Multiple domains
- PowerBI and SQL
- R, Python



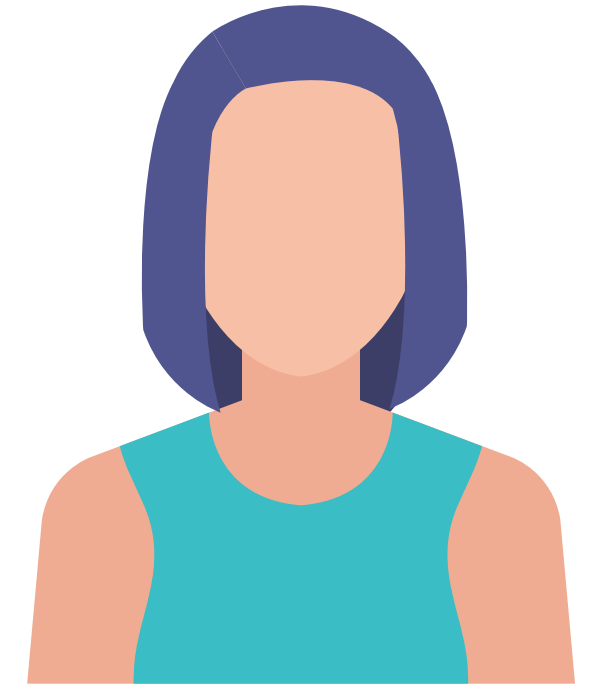
## Data Scientist

- Python, R, SQL
- Machine Learning
- Statistical Inference



## Data Engineer

- Python & SQL
- Spark
- CS-focused



Business Analytics

~150 majors

Data Science

~150

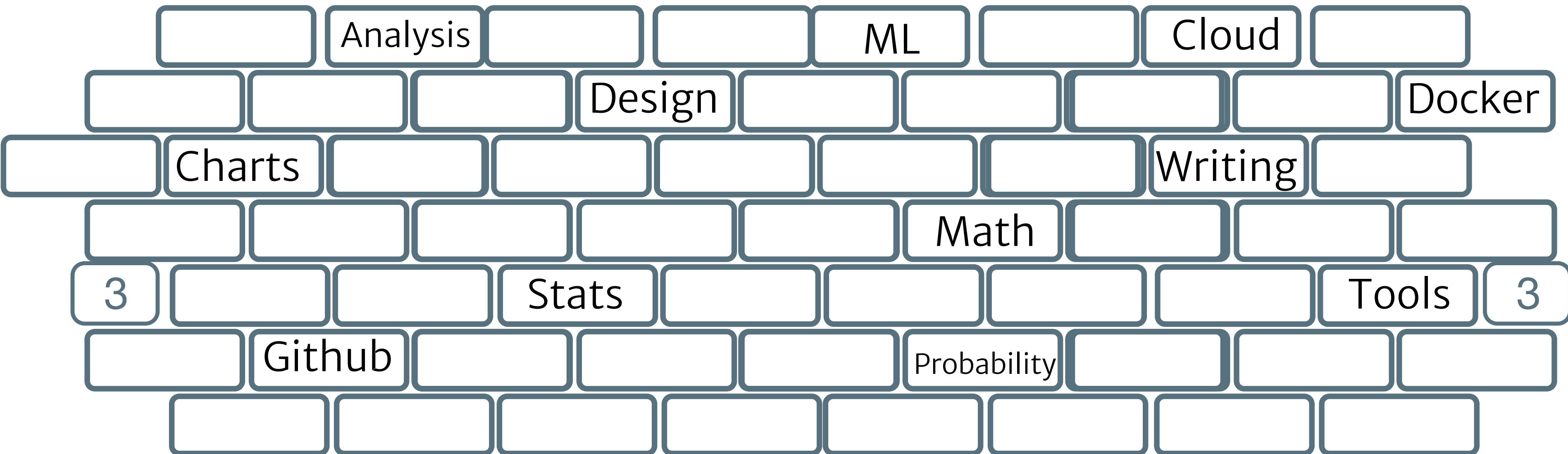
**BYU-Idaho Degrees**

~500

**Computer Science (ML Emphasis)**

Economics, Statistics, Computer Information Technology

# Data is the foundation



## ② Programming ②

① D A T A ①

# Industry leading tools



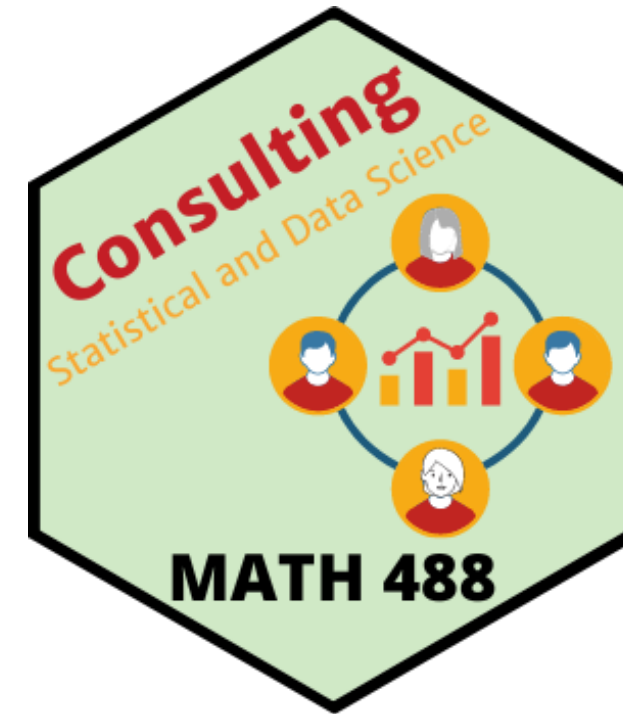
# Experiential Learning is key



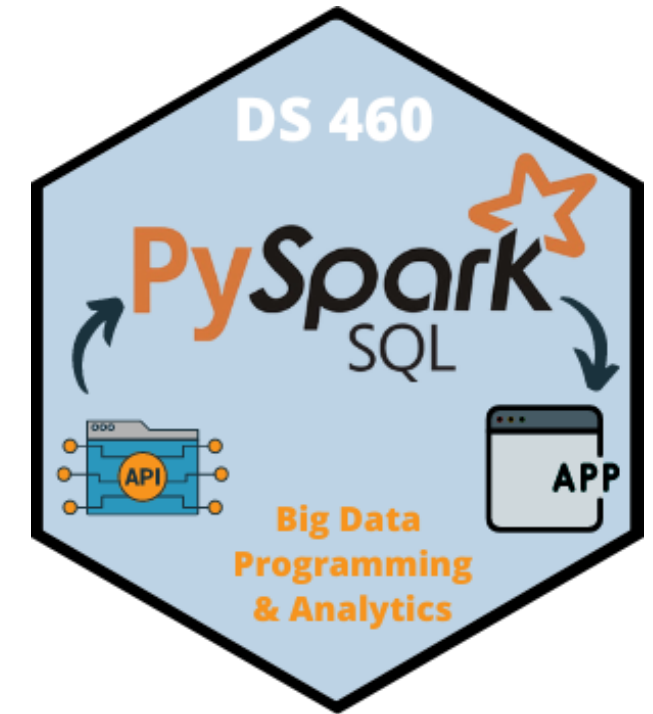
- Company-focused small projects
- Meet weekly at 6 pm
- Student teams
- Student lead
- 7-10 projects a semester
- Little to no cost



- Full Semester
- Company lead
- 20-50 students a semester
- Employed by the company



- Company-focused projects
- Semester based
- RBDC and Faculty lead
- 4-8 projects a semester
- Consulting Fee



- Capstone course
- Semester based
- Class run as a startup
- Company advised

Freshman

>>>

Sophomore

>>>

Junior

>>>

Senior

# Data Science at BYU-I

1. Demonstrate proficiency in the core programming languages of a data science professional.
2. Establish a foundation in statistical modeling and mathematical reasoning.
3. Do exploratory analyses of complex and 'large' unformatted data across varied domain applications.
4. Use machine learning and statistics for inferential decision-making in business and science.
5. Enrich and demonstrate team-based collaborative skills necessary for careers as a data scientist.
6. Understand the ethical and moral implications of data science applications.

