

SPENCER MATTHEWS

PhD Student & Data Scientist

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(916) 960-7531

<https://srmatt.github.io>

EDUCATION —

University of California, Irvine

Irvine, California
Doctor of Philosophy
Statistics
June 2026
2022 Newcomb Award

Brigham Young University

Provo, Utah
Bachelor of Science
Statistics
December 2020
Summa Cum Laude

SKILLS —

Computer Languages:

R (advanced)
Python (intermediate)
HTML/CSS (intermediate)
JavaScript (proficient)
SQL (proficient)
C++ (proficient)

Frameworks/Software:

Git / GitHub
Azure
Tidyverse / Shiny / Golem
Spark / H2O
AWS S3
Domino

Languages:

English (native)
Spanish (fluent)

CONTRIBUTOR —

- `{mshap}` R Package for explaining two-part models (>5.6K downloads)
- Autonomic family of functions in `{shinyWidgets}` R Package (>2.1M downloads)

EXPERIENCE

Bayer Crop Science • Data Science Intern • New Business Models (NBMs)

June 2022 – Present

- Cleaned, explored, analyzed, and presented relevant business insights from 4 large public datasets focused on crop insurance policies and claims
- Performed monthly data experiments and presented the results to business partners to facilitate decision making in NBMs
- Used economic theory to assess value of NBMs from the farmer's POV

CLA (CliftonLarsonAllen, LLP) • Data Science Intern

January 2020 – September 2021

- Developed R Shiny applications within the Golem framework for 5 internal projects which were hosted in the production environment and experienced heavy use by up to 300 users
- Contributed functions and documentation to 4 internal R packages for easier operations with Azure Datalake and Azure Database
- Automated PowerPoint creation with R to populate template slide decks with data and information about any subgroup of the firm
- Extracted usable datasets from firm databases using Tidyverse data manipulation principles so leaders can assess progress

Brigham Young University • Research Assistant • Dr. Brian Hartman

December 2019 – September 2021

- Developed model explainability algorithm for two-part models so machine learning methods can be used for prediction in regulated industries
- Authored two papers and gave one conference presentation explaining our new methodology and expounding on the results
- Created, organized, and maintained two public code repositories so the work can be reproduced and built upon

SERVICE AND LEADERSHIP

The Church of Jesus Christ of Latter-Day Saints

Full Time Missionary (August 2016 – August 2018)

- Shared religious messages with the people of Peru while learning a new language/culture, planning daily activities, and overcoming rejection
- Trained and led other missionaries in their efforts

Boy Scouts of America

Eagle Scout Award (December 2015)

- Coordinated and led a large community service project
- Completed other requirements of service, learning, and citizenship