Spencer Matthews

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Education

- Ph.D. Statistics, University of California – Irvine, Expected June 2026
    - Advisor: Dr. Bin Nan, Ph.D.
    - Proposed Dissertation Title: Residual Life Analysis with Functional Data
- B.S. Statistics, Brigham Young University, September 2018 - December 2020, *summa cum laude*

Published Work

- **Matthews, S.,** & Hartman, B. (2022). Machine Learning in Ratemaking, an Application in Commercial Auto Insurance. *Risks*, *10*(4), 80.
- **Matthews, S.,** & Hartman, B. (2022). mSHAP: SHAP Values for Two-Part Models. *Risks, 10*(1), 3.

Presentations

- **Matthews, S.** (2021). mSHAP, Explaining Two-Part Models. 24th International Insurance: Mathematics and Economics Conference. Virtual Format. 8 July 2021.

Research Posters

- **Matthews, S.** (2021). What kinds of Volleyball Partnerships are Successful? UCONN Sports analytics Symposium 2021.

Teaching Experience

- Teaching Assistant
    - Basic Statistics, STAT 121, Brigham Young University, Jan 2018 – May 2020
    - Basic Statistics, STATS 7, University of California – Irvine, Fall 2021 and Winter 2022
    - Statistical Methods for Data Analysis III, STATS 112, University of California – Irvine, Spring 2022
    - Introduction to Probability and Statistics, STATS 120A, University of California – Irvine, Fall 2022

Internships

- Decision Science Intern. Bayer Corporation, Crop Science. Summer 2022. Remote.
- Data Science Intern. CliftonLarsonAllen, LLP. January 2020 – September 2021. Remote.

Awards/Honors

- **2022 Robert L. Newcomb Memorial Endowed Graduate Student Award:** Best overall score on first-year statistics qualifying exams at University of California - Irvine
- **2018 – 2020 Dean's List:** Brigham Young University

Scientific Software

- **mshap** R package for computing SHAP values for two-part models quickly and efficiently in R