

W. Zachary Horton

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Education

University of California, Santa Cruz

PhD, Statistical Science

- External fellowships: ARCS Scholar (2021/2023), Koerner Family Fellow (2022)
- Studying Bayesian nonparametric models for renewal processes

Sept.2019–Current

Santa Cruz, CA

Brigham Young University

MS, Statistics (Integrated MS/BS)

- Fully funded by academic scholarships
- Thesis published in *Technometrics*: *Template Priors in Bayesian Curve Registration*

Aug.2017–Aug.2019

Provo, UT

Brigham Young University

BS, Actuarial Science

- Overall GPA: 3.94, Major GPA: 4.0
- Graduated in top 5% (Magna Cum Laude)
- Dean's list and university scholarships throughout

Jan.2015–Aug.2019

Provo, UT

Relevant Experience

Quant Researcher

Double River Investments

- Part-time work during academic year alongside PhD studies
- Research and develop alpha signals for long-short market-neutral strategies
- Enhance forecasts using non-linear regression techniques and tree-based ML models
- Improve factor-based return predictions using online outlier detection

Feb.2020–Current

Lehi, UT

Academic Collaborator

UNC Exercise and Sports Science Dept.

- Develop and code modeling protocols to analyze biomechanical waveform data
- Consult with researchers regarding customization or adjustments
- Write approachable model summaries for publications in non-stats journals
- Co-authored on 8 papers in exercise science journals with more on the way

Aug.2020–Current

Chapel Hill, NC

Actuarial Consulting Intern

Aon - Health and Benefits

- Worked with client data to set health policy prices
- Conducted detailed accuracy checks for coworkers' reserve models
- Led the transfer of a large pricing model to Aon's web-based system

May.2017–Aug.2017

Denver, CO

Course Instructor / Teaching Assistant

UCSC Statistics Dept.

- Instructor of record for 7 quarters, TA assignments for 6
- Taught a graduate-level modeling and computing class for 2 quarters
- Praised for clear communication skills in student reviews
- Proactively updated course content to improve quality
- Served as grad student rep for a year

Sep.2019–Current

Santa Cruz, CA

Skills and Awards

Communication

- Best Speaker award at j-ISBA BAYSM 2023
- Student presentation award at ARC 2019

Programming

- 8 years R experience, 3 years Julia experience
- Familiar with Python, Tableau, JMP
- Rudimentary package development (see Github)

Modeling Techniques

- Regression: linear, splines, LASSO, GLM
- Time-series: ARIMA, dynamic linear models
- BNP: Gaussian process, Dirichlet process mixtures
- Point-process: hazard modeling, renewal processes
- Multivariate: PCA, tree-based ML models
- Other areas: survival, spatial, functional, MCMC