

Adam Elder

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Summary

- Expertise creating data analysis pipelines for easily reproducible and auditable research
- Strong leadership and interpersonal skills
- Excellent written and oral communication ability
- Ability to teach others complex concepts and methods
- Conduct statistical research - network modeling, semi-parametric inference and causal inference

Research Experience

- 2019–Current **University of Washington, Research Assistant, Seattle, WA**
- Fit exponential random graph models to understand HIV spread with egocentrically sampled data
 - Create internal reproducible reports using R-markdown, github, and R
 - Construct pipelines that can re-run each step of an analysis with new data, or settings
- 2018–2019 **Kaiser Permanente, Research Assistant, Seattle, WA**
- Use machine learning to identify patients likely to miss appointments
 - Interface with management to implement these predictions into Kaiser's healthcare system
 - Build a reproducible pipeline to clean electronic medical records, create predictive models, and assess their accuracy using historic data
- 2018 **Fred Hutchinson Cancer Research Center, Research Assistant, Seattle, WA**
- Prepare and publish a manuscript for new methods in hinge models
 - Improve computational efficiency for linear hinge models
- 2014–2016 **Western Washington University, Undergraduate Researcher, Bellingham, WA**
- Conduct independent chemistry research, creating a computer program to model crystal lattices interactions

Professional Experience

- 2017 **University of Washington, Teaching Assistant, Seattle, WA**
- Teach quiz and discussion sections to multiple classes of roughly 30 students
 - Provide students with one-on-one help over email or in person during office hours
- 2016–2017 **Statistics Tutor, University of Washington, Seattle, WA**
- Helping undergraduate students understand statistical concepts, and work homework problems
- 2013–2016 **Western Washington University, Math Fellow, Bellingham, WA**
- Work with students one-on-one to solve homework problems for calculus level math classes and above
 - Plan and lead workshops introducing students to software and hardware used in upper level math classes
- 2013–2014 **University of New Mexico HPV Prevention Center, Lab Assistant, Albuquerque, NM**
- Organize over 70,000 samples and carry out DNA sequencing with a team of pathologists

Skills

Programming Languages: R, Mathematica
Software: Github, LaTeX, MS Word

Education

- Expected 2021 **PhD, Biostatistics, University of Washington, Seattle, WA**
- 2016 **BS, Mathematics, Western Washington University, Bellingham, WA**

Awards

- 2016 **Magna Cum Laude, Western Washington University, Bellingham, WA**
Recognition for achieving a GPA in the 97th percentile or above in upper level classes

Publications

- [1] **A Elder**, Y Fong. "Estimation and inference for upper hinge regression models". In: *Environmental and Ecological Statistics* 26 (2019), pp. 287–302