

# Seth D. Temple

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## EDUCATION

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PhD, Statistics, University of Washington 09/19 - Present

- Advised by Sharon Browning
- NDSEG Fellow, NIH Predoctoral Trainee in Statistical Genetics
- Alzheimer's Disease Sequencing Project Follow-Up Study

BS, Mathematics, University of Oregon 09/14 – 06/18

- *Summa cum laude*, Phi Beta Kappa, Departmental Honors, Presidential Scholar
- Honors Thesis: "The Tweedie Index Parameter and Its Estimator"

Committee: Chris Sinclair (chair), Peter Ralph, Samantha Hopkins

## RESEARCH & WORK

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*Graduate Research Assistant, University of Washington* 09/20 – Present

- Developing methods to study recent evolution in human populations
- Studying patterns of identity-by-descent in families affected by Alzheimer's

*Graduate Research Assistant, Los Alamos National Laboratory* 06/20 – 09/20

- Advised by Dr. Kimberly Kaufeld
- Constructed spatiotemporal occupancy models for vector epidemiology
- Applied maximum entropy modeling for mosquito species distribution mapping

*Actuarial Assistant, Liberty Mutual Insurance* 07/18 – 08/19

- Performed reserving analyses for the leading global surety
- Developed SQL/SAS code to query claims database
- Passed actuarial exams (MAS I, P, and FM)

*Research Assistant, University of Oregon* 02/18 – 06/18

- Built neural nets in Python to predict punctuation for audio recordings
- Trained *keras* models with graphical processing units

*Actuarial Intern, Liberty Mutual Insurance* 06/17 – 09/17

- Created choropleth maps with R to visualize effects of a spatial smoothing algorithm

## TEACHING

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*Directed Reading Program, University of Washington* 09/20 – Present

- Mentor to 4 students, member of organizing and admissions committees

*Teaching Assistant, University of Washington*

- CSE/STAT 416 (Sp20): Introduction to Machine Learning
- STAT 423/504 (W20): Applied Regression and Analysis of Variance
- STAT 421 (F19): Applied Statistics and Experimental Design

*Teaching Assistant, University of Oregon*

- MATH 467 (W18): Stochastic Processes
- MATH 315 (Sp17): Fundamentals of Analysis
- MATH 105 (F16, W18): University Mathematics I

*Math Tutor, University of Oregon* 09/14 – 06/17

## PAPERS

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- Gorris, Morgan E., Andrew W. Bartlow, Seth D. Temple, Daniel Romero-Alvarez, Deborah P. Shutt, Jeanne M. Fair, Kimberly A. Kaufeld, Sara Y. Del Valle, and Carrie A. Manore. "Updated distribution maps of predominant *Culex* mosquitoes across the Americas." *Parasites & Vectors* 14, no. 1 (2021): 1-13.
- Temple, Seth D., and Kimberly A. Kaufeld. "Bayesian time-varying occupancy model for West Nile virus in Ontario, Canada." (submitted)
- Temple, Seth D. "PhD Preliminary Exam Report on 'Pair-based likelihood approximations for stochastic epidemic models.'" (2021). <https://github.com/sdtemple/pblas>
- Temple, Seth D. "Text search informed by word frequencies and topic modeling: A human-machine collaborative approach to analyzing English text data from multilingual, multicultural students." (2021). <https://github.com/sdtemple/coilnlp>
- Temple, Seth D. "The Tweedie Index Parameter and Its Estimator." (2018). <https://math.uoregon.edu/wp-content/uploads/2018/07/TempleStempleTweedieThesis.pdf>
- Temple, Seth D. "Bean as Our Future: How *Ender's Shadow* Disputes the 1997 Backlash against Human Cloning." (2017).

## CONFERENCES

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2021 Joint Statistical Meetings	08/21
26 <sup>th</sup> Summer Institute in Statistical Genetics	07/21
25 <sup>th</sup> Summer Institute in Statistical Genetics	07/20
AAAS 2020 Annual Meeting	02/20
SAMSI Undergraduate Modeling Workshop	05/18
University of Oregon Undergraduate Research Symposium	05/18
University of Oregon Undergraduate Research Symposium	05/17
SAMSI Astrophysics Undergraduate Outreach	10/16

## SERVICE

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<i>UW STAT Social Committee Co-chair</i>	06/20 – Present
<i>UW STAT Book Club Organizer</i>	Summer '20, '21
<i>Homework Helper at Seattle Public Library</i>	09/18 – 06/19
<i>Pride@Liberty West Zone</i>	02/19 – 08/19
<i>Club Soccer President and Treasurer</i>	06/16 – 06/18
<ul style="list-style-type: none"><li>▪ Managed administration, finances, and social media for traveling team</li><li>▪ Leadership award for most outstanding club sports officer</li></ul>	
<i>Tutor at Looking Glass Community Services</i>	04/17 – 06/17
<i>d.a.i. Tübingen Rent an American Volunteer</i>	04/15 – 08/15

## SKILLS

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Software: Python, R, Excel, SQL, Unix (experienced); C++, Java, SAS (intermediate)

Languages: English (first), German (proficient)

## COURSEWORK

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### University of Washington

- Advanced Regression Methods I-II
- Advanced Theory of Statistical Inference I-III
- Statistical Inference I-II
- Stochastic Modelling of Scientific Data I-II
- Theory of Linear Models
- Measure Theory
- Statistical Genetics I-II: Mendelian Inheritance and Quantitative Traits
- Statistical Genetics Seminar
- Introduction to Computational Biology
- Molecular Population Genetics and Evolution
- Statistical Consulting

### University of Oregon

- Mathematical Statistics I-II
- Regression Analysis
- Stochastic Processes
- Point Set Topology
- Mathematical Cryptography
- Real Analysis
- Linear Algebra I-II
- Multivariable Calculus
- Differential Equations
- Introduction to Computer Science I-III
- Algorithms and Data Structures
- Data Science