

# Seth D. Temple

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## EDUCATION

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- PhD, Statistics, University of Washington 09/19 - Present
- Dissertation Committee: Sharon Browning (lead), Elizabeth Thompson, Amy Willis, Kelley Harris
  - MS degree in Statistics (concurrent; Autumn 2022)
  - 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
  - Thesis Committee: Chris Sinclair, Peter Ralph, Samantha Hopkins
  - Exchange semester at Universität Tübingen

## 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 A. 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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- Instructor of Record, University of Washington*
- BIOST 550 (Sp22): Statistical Genetics I: Mendelian Traits
  - BIOST 581 (W23): Statistical Genetics Journal Club
- Directed Reading Program, University of Washington* 09/20 – Present
- Mentor to 4 students, member of organizing and admissions committees
- Teaching Assistant, University of Washington*
- Module 15 of SISG (Su22): Association Mapping: GWAS and Sequencing Data
  - 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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- Temple, S.D., Manore, C.A. & Kaufeld, K.A. Bayesian time-varying occupancy model for West Nile virus in Ontario, Canada. *Stoch Environ Res Risk Assess* (2022). <https://doi.org/10.1007/s00477-022-02257-4>
- Gorris, M.E., Bartlow, A.W., Temple, S.D. et al. Updated distribution maps of predominant Culex mosquitoes across the Americas. *Parasites & Vectors* 14, 547 (2021). <https://doi.org/10.1186/s13071-021-05051-3>
- Temple, S.D. PhD Preliminary Exam Report on “Pair-based likelihood approximations for stochastic epidemic models”. (2021). <https://github.com/sdtemple/pblas>
- Temple, S.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, S.D. The Tweedie Index Parameter and Its Estimator. (2018). <https://math.uoregon.edu/wp-content/uploads/2018/07/TempleStempleTweedieThesis.pdf>
- Temple, S.D. Bean as Our Future: How *Ender's Shadow* Disputes the 1997 Backlash against Human Cloning. (2017). <https://scholarsbank.uoregon.edu/xmlui/handle/1794/23493>

## CONFERENCES

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International Genetic Epidemiology Society Annual Meeting (presenter)	09/22
American Association of Anthropological Genetics Workshop on Computational Genetics	07/22
International Society of Bayesian Analysis (abstract accepted)	06/22
2021 Joint Statistical Meetings	08/21
25 <sup>th</sup> , 26 <sup>th</sup> Summer Institute in Statistical Genetics	07/20, 07/21
AAAS 2020 Annual Meeting	02/20
SAMSI Undergraduate Modeling Workshop	05/18
University of Oregon Undergraduate Research Symposium (presenter)	05/18
University of Oregon Undergraduate Research Symposium (presenter)	05/17
SAMSI Astrophysics Undergraduate Outreach	10/16

## SERVICE

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<i>UW STAT Social Committee Co-chair</i>	06/20 – 06/22
<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, Unix, SQL, qsub (experienced); C++, Java, SAS, slurm (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 Consulting (1 term); Applied Consulting Project (1 term)
- 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
- Introduction to Computational Biology
- Molecular Population Genetics and Evolution
- Advanced Human Genetics
- Statistical Genetics Seminar (10 quarter terms)
- Statistics Student Seminar
- Reading Groups: Phylogenetics, Theoretical Evolutionary Biology, Survival Analysis
  - Organizer for lab journal club on phasing, IBD segment detection, population genetics

### 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

## REFERENCES

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### [Sharon R. Browning, PhD](#)

UW Research Professor (Biostatistics)

Dissertation Advisor

Contact: [sguy@uw.edu](mailto:sguy@uw.edu)

### [Elizabeth Blue, PhD](#)

UW Associate Professor (Medical Genetics)

Applied Consulting Project Client

Contact: [em27@uw.edu](mailto:em27@uw.edu)

### [Kimberly A. Kaufeld, PhD](#)

Los Alamos Statistical Scientist

Intern Mentor, Co-author

Contact: [kkaufeld@lanl.gov](mailto:kkaufeld@lanl.gov)

### [Christopher Sinclair, PhD](#)

UO Associate Professor (Mathematics)

Undergraduate Thesis Advisor

Contact: [csinclair@uoregon.edu](mailto:csinclair@uoregon.edu)