

Seth D. Temple

Padelford Hall B-222, Seattle, WA 98195

sdtemple@uw.edu • [Website](#) • [Google Scholar](#) • [YouTube](#)

EDUCATION

- PhD, Statistics, University of Washington 09/19 - Present
- Dissertation Committee: Sharon Browning (head), 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

- Research Technician II, Fred Hutch Cancer Center; Howard Hughes Medical Institute* 06/23 – 09/23
- Project with [Matsen group](#) on evolutionary dynamics of antibody affinity maturation in replica germinal centers
- 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
 - Extending [FLARE](#) method for local ancestry inference
- 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

PAPERS

- 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. The Tweedie Index Parameter and Its Estimator. (2018). <https://math.uoregon.edu/wp-content/uploads/2018/07/TempleStempleTweedieThesis.pdf>

TEACHING

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

SERVICE

Type-run-error jogging club of (bio)statisticians

06/22 – Present

Queer Union for (Bio)statistician Inclusion and Community

03/22 – Present

UW STAT Social Committee Co-chair

06/20 – 06/22

UW STAT Book Club Organizer

Summer '20, '21

Homework Helper at Seattle Public Library

09/18 – 06/19

Pride@Liberty West Zone

02/19 – 08/19

Club Soccer President and Treasurer

06/16 – 06/18

- Managed administration, finances, and social media for traveling team
- Leadership award for most outstanding club sports officer

Tutor at Looking Glass Community Services

04/17 – 06/17

d.a.i. Tübingen Rent an American Volunteer

04/15 – 08/15

SKILLS

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

Languages: English (first), German (moderate fluency), Spanish (limited proficiency)

REFERENCES

[Sharon R. Browning, PhD](#)

UW Research Professor (Biostatistics)

Dissertation Advisor

Contact: sguy@uw.edu

[Kimberly A. Kaufeld, PhD](#)

Los Alamos Statistical Scientist

Intern Mentor, Co-author

Contact: kkaufeld@lanl.gov

[Elizabeth Blue, PhD](#)

UW Associate Professor (Medical Genetics)

Applied Consulting Project Client

Contact: em27@uw.edu

[Christopher Sinclair, PhD](#)

UO Associate Professor (Mathematics)

Undergraduate Thesis Advisor

Contact: csinclair@uoregon.edu

CONFERENCES

NDSEG Fellows Conference (poster)	08/23
IBS WNAR Annual Meeting (presenter)	06/23
Workshop of Statistical Network Analysis and Beyond (poster)	06/23
Evolutionary Biologists of Washington, Idaho, British Columbia, Oregon (poster)	04/23
Probabilistic Modeling in Genomics (poster)	03/23
UW Computational Biology Annual Meeting (poster)	01/23
20 th Anniversary of UW Genome Sciences Department	11/22
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 th , 26 th , 27 th Summer Institute in Statistical Genetics	07/20,21,22
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

COURSEWORK

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
- Mathematics of Evolution
- Statistical Genetics Seminar (12 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

- Electives: Mathematical Statistics I-II; Regression Analysis; Stochastic Processes; Topology; Cryptography
- Core Courses: Linear Algebra I-II; Real Analysis; Multivariable Calculus; Differential Equations
- Minor: Introduction to Computer Science I-III; Algorithms and Data Structures; Data Science