Skyler Wu

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United States Citizen

EDUCATION

Stanford University — September 2024 - May 2029 (Expected)
Ph.D. Candidate in Statistics — GPA: 3.92
National Science Foundation Graduate Research Fellow
Advisors: Scott W. Linderman and Emmanuel J. Candes

Harvard University — September 2020 - May 2024
A.B. in Statistics & Mathematics (Summa Cum Laude with Highest Honors) — GPA: 4.00
S.M. in Applied Mathematics (Concurrent) — GPA: 3.95
Secondary Field in Computer Science
Advisor: Samuel Kou

PUBLICATIONS

- Kyla Chasalow*, **Skyler Wu*,** Susan Murphy, "Missing Data Multiple Imputation for Tabular Q-Learning in Online RL", Working paper (2025).
- **Skyler Wu,** Shihao Yang, Samuel Kou, "Are Statistical Methods Obsolete in the Era of Deep Learning?", Under revision and resubmission to *The American Statistician* (2025+).
- David M. Zoltowski*, **Skyler Wu***, Xavier Gonzalez, Leo Kozachkov, Scott W. Linderman, "Parallelizing MCMC Across the Sequence Length", accepted to *NeurIPS 2025* [page].
- **Skyler Wu**, Austin Meyer, Leonardo Clemente, Lucas M. Stolerman, Fred Lu, Atreyee Majumder, Rudi Verbeeck, Serge Masyn, Mauricio Santillana, "Ensemble Approaches for Short-Term Dengue Fever Forecasts: A Global Evaluation Study", *Proceedings of the National Academy of Sciences 122 (2025).*
- **Skyler Wu**, Fred Lu, Edward Raff, James Holt, "Stabilizing Linear Passive-Aggressive Online Learning with Weighted Reservoir Sampling", *Advances in Neural Information Processing Systems (NeurIPS), 2024*.
- **Skyler Wu***, Eric M. Shen*, Charumathi Badrinath*, Jiaqi Ma, Himabindu Lakkaraju, "Analyzing Chain-of-Thought Prompting in Large Language Models via Gradient-based Feature Attributions", *Challenges in Deployable Generative AI Workshop at ICML 2023.*
- **Skyler Wu,** Fred Lu, Edward Raff, James Holt, "Exploring the Sharpened Cosine Similarity", *I Can't Believe It's Not Better Workshop at NeurIPS 2022.*

(* Equal Contribution)

PROFESSIONAL EXPERIENCES

Booz Allen Hamilton — Remote
Analytics Fellow, Junior — September 2021 – October 2025
Spearheaded two ML projects for the Laboratory for Physical Sciences client. Select technical contributions include:

- Leveraged high-performance computing and scaling deep-learning architectures across multiple GPU processors for efficient running of experiments.
- Designed efficient pipelines for finding-and-replacing of target components within arbitrary neural network architectures, as well as routines for simulating adversarial attacks and investigating model interpretability.
- Stabilized passive-aggressive online learning algorithms' out-of-sample performances to near-oracle levels and with orders-of-magnitude faster wall-clock time.

Consistently practiced effective communication, teamwork, and project management. Worked full-time during Summers 2022 and 2023, and part-time during the school years. Two first-author papers: one at the I Can't Believe It's Not Better Workshop at NeurIPS 2022; and another at NeurIPS 2024 (main track).

TECHNICAL AND NON-TECHNICAL SKILLS

- **Programming:** Proficient in Python (incl. Multiprocessing, JAX, PyTorch/PyG, TensorFlow/TensorFlow Probability, HuggingFace family, NumPy, Pandas, Matplotlib/Seaborn, SciPy, scikit-learn, CVXPY, etc.), experience working in R, Bash, HTML/CSS/JavaScript, and C.
- **Foreign Languages:** Mandarin Chinese (native proficiency).

TALKS AND PRESENTATIONS

- Contributed Poster: "Stabilizing Linear Passive-Aggressive Online Learning with Weighted Reservoir Sampling", Stanford-Berkeley Joint Colloquium Poster Session. October 29, 2024.

- Invited Talk: "Ensemble Approaches for Robust and Generalizable Short-Term Forecasts of Dengue Fever" Oklahoma State University Dept of Mathematics, Computational and Applied Math Seminar. February 20, 2025.
- Contributed Poster: "Parallelizing MCMC Across the Sequence Length", Stanford-Berkeley Joint Colloquium Poster Session. October 21, 2025.

AWARDS AND FUNDING

- **National Science Foundation Graduate Research Fellowship Program:** provides 3 years of support over a 5-year fellowship period for the graduate education of individuals who have demonstrated their potential for significant research achievements in STEM or STEM education (April 2024).
- **Harvard Department of Statistics Senior Concentrator Award:** awarded annually to the graduating senior concentrator who has the best overall performance (as indicated by coursework results and thesis) and who has contributed significantly to the department (May 2024).
- **Harvard University Sophia Freund Prize:** awarded annually to the highest ranking undergraduate as determined at the final degree meeting of the Faculty. The award will be made to that student graduating summa cum laude who has the highest grade point average (May 2024).
- **Phi Beta Kappa Harvard College:** elected as a member of Harvard College's chapter of Phi Beta Kappa, Alpha Iota of Massachusetts. Elected as a member of the Class of 2024 Senior 48 (Fall 2023).
- **The Derek Bok Center for Teaching and Learning:** 2x Certificate of Distinction in Teaching (Fall 2021, Spring 2022). This certificate is awarded to course staff who earn an overall score of 4.5 out of 5.0 or higher (with a minimum of five evaluations) on the Q evaluations completed by students in their courses. Award discontinued starting Fall 2022.

TEACHING EXPERIENCES

Stanford University Stanford, CA
Teaching Assistant for STATS 202 Fall 2024
Held weekly office hours and graded student assignments and exams for STATS 202: Statistical Learning and Data Science, taught by Professor Guenther Walther, Department of Statistics.

Harvard University Cambridge, MA
Undergraduate Teaching Fellow for STAT 111 Spring 2024
Co-taught sections with custom materials and spearheaded pilot Conceptual Office Hours (COH) system in STAT 111: Introduction to Statistical Inference, taught by Professors Joseph Blitzstein and Neil Shephard. Designed and coordinated COH for 1-on-1 and small-group conceptual instruction, led a team of 15+ Teaching Fellows.

Co-Head Teaching Fellow for COMPSCI 181 September 2022 – May 2023
Co-coordinated recruitment and selection of course staff in Fall 2022, co-managed teams of teaching fellows, and co-ran course logistics before / during course semester (e.g., announcements, forms, homework drafting and solution-writing, exam proctoring, curriculum development, staff meetings, etc.) for COMPSCI 181: Machine Learning, taught by Dr. Weiwei Pan. Also held weekly office hours and co-taught weekly lecture-style sections.

Undergraduate Teaching Fellow for COMPSCI 181 Spring 2022
Created Python / NumPy and scikit-learn / PyTorch guides from scratch. Held weekly office hours, co-taught weekly sections, graded assignments, and helped revamp course materials in COMPSCI 181: Machine Learning, taught by Professor Finale Doshi-Velez.

Undergraduate Teaching Fellow for STAT 110 Fall 2021, 2022, 2023
Co-taught sections with custom materials, held office hours, and graded assignments weekly in STAT 110: Introduction to Probability, taught by Professor Joseph Blitzstein. Created and presented review lectures. Spearheaded development of new Teaching Fellow on-boarding curriculum and coordinated training sessions.

SERVICE

I Can't Believe It's Not Better Workshop @ NeurIPS 2023 Remote
Reviewer October 2023
Reviewed 3 papers for the 2023 workshop iteration, focusing on "Failure Modes in the Age of Foundation Models."

Group for Undergraduate Students in Statistics at Harvard College Cambridge, MA
Treasurer August 2021 – May 2024
Managed finances, helped coordinate programming for the student community (e.g., panels, workshops, socials), served as a mentor for underclassmen, and supported the Statistics Department in creating a Course Assistant Diversity, Equity, and Inclusion (DEI) training curriculum.