Annie K. Lamar

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Education

Stanford University, Stanford, CA 2024
PhD, Department of Classics
Dissertation: "Formulaic Mechanics: A Computational Model of the Homeric Formula"
Data Science Scholar, Stanford Data Science '21-23
Digital Humanities Graduate Fellow, Center for Spatial and Textual Analysis '21
Stanford Research Computing Fellow '23

Stanford Graduate School of Education, Stanford University, Stanford, CA March 2023
MA, Education, *emphasis Education Data Science*

University of Puget Sound, Tacoma, WA 2019
B.A. Classical Languages, *summa cum laude*
B.S. Computer Science, minor Mathematics, *summa cum laude*
University Honors Program
Lillis Scholar

Peer-Reviewed Publications

Kaya, Zeyneb, **Lamar, Annie K.** 2023. Measuring the Impact of Data Augmentation Algorithms for Extremely Low-Resource NMT. In *Proceedings of the Sixth Workshop on Technologies for Machine Translation of Low-Resource Languages (LoResMT23)*, pp. 101-109. Association for Computational Linguistics. Available here.

Lamar, Annie K. 2021. "Review: A Conversation with the Creators of Alpheios Reading Tools." *Society for Classical Studies Digital Review Series*. Edited by T.H.M. Gellar-Goad. Available here.

Lang, A., Dombrowski, Q., & **Lamar, A.K.** (2021). The Ghost in Anouk's Laptop. The Data-Sitters Club, 9. https://datasittersclub.github.io/site/dsc9.html.

Lamar, Annie K., Chambers, America. 2020. "Generating Metrically Accurate Homeric Poetry with Recurrent Neural Networks*." International Journal of Transdisciplinary Artificial Intelligence* Vol. 2, No. 1: pp 1-25. DOI: 10.35708/TAI1869-126247.

Lamar, Annie K., Chambers, America. 2019. "Generating Homeric Poetry with Deep Neural Nets." 2019 International Transdisciplinary AI Conference. DOI: 10.1109/TransAI46475.2019.00020.

Lamar, Annie K., Chambers, America. 2018. "Preserving Persona through a Pivot Language: Low-Resource NMT of Ancient Languages." 2018 IEEE MIT Undergraduate Research Technology Conference. *IEEE Xplore Digital Library*. DOI: 10.1109/URTC45901.2018.9244794.

Work Experience

Research Computing Graduate Consultant 2023 – present
Stanford Research Computing Center (SRC), Stanford University

- Create, improve, and test scripts in Python and R for a variety of NLP tasks (example with LLMs)
- Design and run workshops on research computing in Python and R
- Aid SRC team in acquiring funding resources and writing grants
- Collaborate on a book project, titled *Research Computing for Humanists*

Technical Data Science Mentor 2023 – present
Data Science for Social Good, Stanford University
Project: Food Bank Data Optimization Project

- Aid faculty in designing and scoping a data-driven project for social impact.
- Design learning activities and prepare technical infrastructure for summer internship program.
- Run daily lab meetings and aid students in learning project management.
- Teach technical data science skills to students in one-on-one and group settings.

Lead Graduate Mentor 2019 – present
Stanford Center for Spatial and Textual Analysis (CESTA)

- Design internship curriculum and coordinate program events for 30 undergraduate interns per quarter.
- Create and lead bi-weekly workshops on academic and professional skills.
- Consult with students and faculty on technical and computational challenges.
- Develop and recommend learning pathways for student skill development.
- Evaluate up to 150 annual student internship applications and help organize the admission process.
- Collaborate with CESTA staff members to integrate internship program into broader CESTA mission.

Technical Graduate Research Assistant 2019 – present
Professor Susan Stephens Director of Graduate Studies, Department of Classics
Publication: *Ancient Greek Athletics: Primary Sources in Translation* (Stocking & Stephens, 2021)
Publication: *Callimachus' Epigrams* (Stephens, 2023, in press)

- Created maps and tables using ArcGIS Pro and Adobe Illustrator.
- Developed indices for names and vocabulary throughout text.
- Wrote and edited glossaries for Greek terms throughout texts.
- Help manage the acquisition of images and copyright permissions.
- Communicate with Oxford University Press about project progress and needs.

Primary Instructor: "Writing Between Disciplines" 2020 – 2021
Stanford Pre-Collegiate Studies, Stanford, CA

- Designed original curriculum to teach interdisciplinary writing to a class of 20 high-school students.
- Taught daily 3-hour seminars for 2 weeks each year.
- Mentor students 1:1 on their writing skills and future academic plans.
- Curated an inclusive classroom environment by inviting in guest speakers from underrepresented backgrounds in academic, cultivating an environment of respect, and being transparent about my own academic and socio-economic background.

Academic Consultant & **Community Development Coordinator** 2018 – 2019
Center for Writing, Learning, and Teaching, University of Puget Sound, Tacoma, WA

- Mentor new staff in the writing center and coordinate additional support of staff and students.
- Write, read, and follow-up on reflections and evaluations for writing center staff.
- Meet with students for academic consulting appointments.

Tutor: Computer Science, Writing, Ancient Greek, & Latin 2016 – 2019
Center for Writing, Learning, and Teaching, University of Puget Sound, Tacoma, WA

- Aid students in understand course material
- Schedule and run group review sessions; create language specific resources for students
- Reach out to students and professors in the Classics, Computer Science, and English departments.

Open-Source Software

FoodFrame: Standardize. Analyze. Impact. [Project] [2023]
Authors: Annie K. Lamar & Tushar Dalmia
Created with non-project food banks in mind, FoodFrame joins data from several national databases to create a nutrition and sustainability profile for large food datasets. You can easily visualize the nutrition categories of a food supply or calculate the amount of food waste prevented by using or donating food sources.

Pyth-agora: Modeling the Impact of Social Networks around Market Spaces and Market Outcomes [Project] [2023]
Authors: Annie K. Lamar & Sarah Wilker
Pyth-agora is a code repository for modeling the impact of select types of social networks on production and consumption outcomes. The purpose of this multidimensional social landscape is to test the impact of different types of social relationships on what individual agents buy and sell, and how these individual transactions build over time to create long-term production and consumption trends.

Classical Atlas: A Python Package for Open-Access Geospatial Datasets [Project, Docs] [2021]
Authors: Annie K. Lamar
Classical Atlas allows geospatial historians to work with data from several linked open-access Geospatial datasets, which are often presented in inconsistent, unstable, or difficult formats. Currently both Pleiades and ToposText are supported. With a single method call, researchers can download, parse, and transform millions of rows of data into a network graph or DataFrame object, then perform a series of computations upon these objects.

Conference Papers & Presentations

[Panelist] Lamar, Annie K. (2024, January) "Future Most Vivid: Creating the Conditions for Human-AI Collaboration in Classical Studies." *Society for Classical Studies Annual Meeting*. Chicago, Illinois.

[Paper] Lamar, Annie K., Dubit, Rachel E. (2023, December) "A Computational Analysis of Wine in the Archaic Greek World." *Wine & Institutions in the Ancient World: International Conference & Book Project by Dimitri Van Limbergen*. Ghent, Belgium.

[Panelist] Lamar, Annie K. (2023, May) “Increasing the Usability of Open-Access Data: The Challenges of Linked, Open, & Ancient Geospatial Datasets.” *Center for Open and Reproducible Science (CORES) Annual Meeting*. Stanford University, Stanford, CA.

[Poster] Lamar, Annie K. (2023, May) “Measuring the Impact of Data Augmentation Algorithms for Extremely Low-Resource NMT.” *Stanford Data Science Annual Conference*. Stanford University, Stanford, CA.

[Presentation] Lamar, Annie K. (2022, October). “Tiny Data.” *Critical Data Practices Symposium*. Stanford University, Stanford, CA.

[Paper] Lamar, Annie K. (2022, August). “Introducing Classical Atlas: A Python Package for Low-Resource Ancient Geospatial Datasets.” *The Connected Past: Networks in the Archaeology of the Ancient Aegean*. Heraklion, Crete, Greece.

[Poster] Lamar, Annie K. (2022, April). “DNA of Ancient Epic: Dynamic Systems for Homeric Poetry.” *2022 Stanford Data Science Inaugural Conference*. Stanford University, Stanford, CA.

[Presentation] Lamar, Annie K. (2020, October). "AI Methods for Homeric Greek." *Data Practices Challenge*. Center for Textual and Spatial Analysis, Stanford University, Stanford, CA.

[Presentation] Lamar, Annie K. (2018, April). "Data and Scholarship for Emerging Classical Sub-Fields*." Northwest Undergraduate Conference on the Ancient World*. Willamette University, Salem, Oregon.

[Presentation] Lamar, Annie K. (2018, March). "Creating a Database for Scholarship in Classical Receptions of Sci-Fi and Fantasy*." 48th Annual Meeting of the Classical Association of the Pacific Northwest.* University of Puget Sound, Tacoma, WA.

[Presentation] Lamar, Annie K. (2018, November). "*I, Cicero:* Low-Resource Neural Machine Translation of Ancient Languages*." Murdock College Science Research Conference.* Vancouver, WA.

- **John Van Zytveld Physical Sciences Award 2018**

[Presentation] Lamar, Annie K. (2018, November). "Better Late than Never: Cancellation Trends in the Writing Center." *National Conference on Peer Tutoring in Writing*. South Padre Island, TX.

[Paper] Lamar, Annie K., Chambers, America. (2018, October). "Preserving Persona through a Pivot Language: Low-Resource NMT of Ancient Languages." *IEEE MIT Undergraduate Technology Conference*. MIT, Boston, MA.

[Poster] Lamar, Annie K., Chambers, America. (2018, October). "Persona Preservation in a Low-Resource Neural Translation Task*." Consortium for Computing Sciences in Colleges (CCSC) Northwestern Regional Conference*. University of Washington, Bothell, WA.

[Poster] Lamar, Annie K., Chambers, America. (2018, September). "Preserving Persona through a Pivot Language: Low-Resource NMT of Ancient Languages*." Summer Research Symposium.* University of Puget Sound, Tacoma, WA.

- **Best Research Poster Award**

[Presentation] Lamar, Annie K. (2017, Nov.). "Becoming Augustine: Creating Network Graph of Texts from Plato to Augustine." *Pacific Northwest Undergraduate Conference in the Humanities*. North Idaho University, Coeur d'Alene, ID.

Teaching Experience

Fall 2021	Virtual Italy: Methods for Historical Data Science (co-instructor) *Faculty lead: Prof. Giovanna Ceserani*
Summer 2021	Writing Between Disciplines (primary instructor) *Stanford Pre-Collegiate Studies Summer Program*
Summer 2021	Virtual Italy: Methods for Historical Data Science (co-instructor) *Faculty lead: Prof. Giovanna Ceserani*
Spring 2021	Intermediate Greek: Homer's Odyssey (primary instructor)
Winter 2021	Ten Things: The Archaeology of Design (TA) *Faculty lead: Prof. Michael Shanks*
Summer 2020	Writing Between Disciplines (primary instructor)

Leadership & Academic Service

Workshop Coordinator, Stanford Humanities Center Research Workshop Series 2021 – present
2022-23 Workshop Title: "Critical Data Practices"
2021-22 Workshop Title: "The Future of the Past: Classics and Technology"

- Manage a $9,000 budget for catering, room reservations, transportation costs, and speaker fees for up to three events each quarter.
- Select and invite speakers for workshop events; coordinate transportation and presentation needs.
- Promote diversity in both speaker selection and audience by inviting scholars from underrepresented backgrounds, new or junior faculty, and graduate students to speak, and marketing events to identity-based groups and equity-focused research labs on campus.

Grad Student Coordinator, **Wellness Information Network for Grad Students (WINGS)** 2020 – present

- Plan and coordinate 4-6 wellness events for department graduate student community each year.
- Curate wellness resources for graduate students and provide referrals to Stanford offices.
- Collaborate with wider wellness network at Stanford to provide spaces for inter-department connections.
- Coach graduate students to develop classroom environments and policies to promote student wellness

Fellowships & Awards

2023	Stanford Research Computing Humanities Fellow, Stanford Research Computing Center
2022	Digital Humanities Graduate Fellowship, Center for Spatial and Textual Analysis (CESTA)
2021-2023	Data Science Scholar, Stanford Data Science
2019	David A. Lupher Translation Award in Classics, *University of Puget Sound*
	Edward Goman Award in Computer Science, *University of Puget Sound*
	Roderick MacArthur Superior Honors Thesis Award, *University of Puget Sound*
2018	Phi Beta Kappa
	Phi Beta Kappa James R. Slater Award *University of Puget Sound*
	Upsilon Pi Epsilon
2015-2019	Lillis Foundation Scholarship, *University of Puget Sound*

Undergraduate Research Fellowships

McCormick Scholar Research Grant, *University of Puget Sound* 2018
Project: "Using Neural Machine Translation to Complete Cicero's *Timaeus.*"
Using Cicero's half-completed translation and other texts Cicero translated from Greek to Latin as training sets, I used neural machine translation to approximate the incomplete portions of Cicero's translation of *Timaeus*.

Richard Bangs-Collier Interdisciplinary Research Grant, *University of Puget Sound* 2017
Project: "Becoming Augustine: A Network Graph of Texts from Plato to Augustine."
Created a network graph to show connections between the texts of Augustine, neo-Platonian, Plato, and biblical sources to show the history of Augustine's ideas, especially regarding free will and original sin. Available here.

Mellon Grant for Digital Humanities, *University of Puget Sound* 2017
Project: "Towards a Database for Scholarship on Classical Receptions of Sci-Fi and Fantasy."
Collaborated with sub-field experts to create a database to hold citations to scholarship for the field of Classical Receptions of Sci-Fi and Fantasy.