

Sofia Serrano

Academic Positions

Assistant Professor Fall 2024-
Department of Computer Science, Lafayette College

Education

University of Washington 2017-2024
PhD in Computer Science and Engineering, advised by Noah A. Smith
Selected coursework: Machine Learning, Statistical Methods in Computer Science, Natural Language Processing

Carleton College 2013-2017
Bachelor of Arts in Computer Science (with Honors) and Mathematics (GPA 4.00)
Selected coursework: Advanced Algorithms, Combinatorics, Abstract Algebra
Studied at Aquincum Institute of Technology in Budapest Fall 2015
Selected coursework: Computer Vision, Combinatorial Optimization, Theory of Computing

Publications

“Troubles in Text: Using Natural Language Processing to Recognize Government Rationalizations for Rights Abuses.” Sarah K. Dreier, Sofia Serrano, Emily K. Gade, and Noah A. Smith. 2025. In *The Journal of Politics*, 87(3), pages 1221-1226. Previously presented at Politics and Computational Social Science (2020) and at the American Political Science Association Annual Meeting (2021).

“Stubborn Lexical Bias in Data and Models.” Sofia Serrano, Jesse Dodge, and Noah A. Smith. 2023. In *Findings of the Association for Computational Linguistics: ACL 2023*, pages 8131–8146.

“All That’s ‘Human’ Is Not Gold: Evaluating Human Evaluation of Generated Text.” Elizabeth Clark, Tal August, Sofia Serrano, Nikita Haduong, Suchin Gururangan, and Noah A. Smith. 2021. In *Proceedings of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing (Volume 1: Long Papers)*, pages 7282–7296. Chosen as an **outstanding paper**.

“Is Attention Interpretable?” Sofia Serrano and Noah A. Smith. 2019. In *Proceedings of the 57th Conference of the Association for Computational Linguistics*, pages 2931–2951.

Working Papers

“Language Models: A Guide for the Perplexed.” Sofia Serrano, Zander Brumbaugh, and Noah A. Smith. 2023.

“Religiosity and Public Policy in Congress: A Text Analysis of U.S. Federal Legislators’ Religious Rhetoric and Policy Attitudes.” Sarah Dreier, Lucy H. Lin, Sofia Serrano, Emily Gade, and Noah A. Smith. Presented at the Conference on New Directions in Analyzing Text as Data (2018) and at Politics and Computational Social Science (2019).

Guest Lectures, Invited Talks, Etc.

Gave the invited keynote talk for the PA Digital Collegium 2025 conference Summer 2025
Lafayette College

Gave an invited talk for the Hanson Center's spring 2025 series around AI Lafayette College	Spring 2025
Panelist at <i>AI Literacy Across the Curriculum</i> symposium Lafayette College	Summer 2024
Gave an invited talk for BIC in the UW/Fred Hutch Center for AIDS Research University of Washington	Spring 2024
Gave two invited talks for the UW Tacoma Computer Literacy seminar series University of Washington Tacoma	Spring 2023
Moderated a campuswide panel on demystifying ChatGPT for academics University of Washington	Spring 2023
Gave a talk on large language models for UW CSE's Security Seminar (CSE 590Y) University of Washington	Spring 2023
Gave two guest lectures for undergraduate NLP (CSE 447) University of Washington	Fall 2022
Gave a guest lecture for graduate and undergraduate NLP (CSE 447, 517) University of Washington	Winter 2022
Gave a guest lecture for POLS 585 Text-as-Data Emory University	Fall 2021
Gave a talk for Women's Research Day event University of Washington	Spring 2020

Mentoring

Mentor for the following Lafayette students on research projects:

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| ▪ Kwame Otoo Appiah '27 (ongoing) | Summer 2025 |
| ▪ Callum Lindars '27 and ChenYu Wan '26 (ongoing) | Summer 2025 |
| ▪ Vladimir Necula '27 and David Gvadzabia '27 (ongoing) | Fall 2024- |

Committee member for the following Lafayette student senior theses:

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| ▪ Robbie Leslie (ECE) | 2025 |
| ▪ William Denton (Physics) | 2025 |
| ▪ Lindsey Huppin (Integrative Engineering) | 2025 |

Ran an independent study on NLP for Malagasy for Landy Rakotoarison '26	Spring 2025
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Mentored the following UW undergrads and MS students on research projects:

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| ▪ Ananya Bajaj (→ continued MS in Data Science at UW) | Spring 2023 |
| ▪ Xiaoning Bu (→ MS student in CS at Columbia) | Fall 2022-Winter 2023 |
| ▪ Lavinia Dunagan (→ PhD student in UMSI at UMichigan) | Summer 2022 |
| ▪ Mourad Heddaya (→ PhD student in CS at UChicago) | Summer 2019-Summer 2020 |

Mentor for UW CSE Pre-Application Mentorship Service University of Washington	2020-2021
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First Year Graduate Student Mentor University of Washington	2018-2020
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Courses Taught

Introduction to Computational Science (CM 151) Lafayette College	Spring 2025
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Digital Media (CS 105) Lafayette College	Spring 2025
Artificial Intelligence (CS 420) Lafayette College	Fall 2024
Digital Media (CS 105) Lafayette College	Fall 2024
Natural Language Processing (CSE 447, for undergraduates) University of Washington	Winter 2023
Teaching Assistant for combined grad/undergraduate NLP (CSE 447, 517) University of Washington	Winter 2021
Teaching Assistant for Natural Language Processing (CSE 517, for grad students) University of Washington	Winter 2020

Service

Reviewer:

- ACL: 2023
- ACL ARR: January 2022, April 2022, emergency reviewer in June 2023, October 2023, emergency reviewer in December 2023, February 2024, June 2024, October 2024, February 2025, May 2025
- COLM: 2024, 2025
- EACL: 2021
- EMNLP main conference: 2021, 2022, 2023
- EMNLP industry track: 2023, 2024, 2025
- NAACL industry track: 2025
- NLP4PI: 2021, 2022, 2024, 2025
- TeachNLP: 2024
- UnImplicit: 2024
- WiNLP: 2024

Volunteer judge for student projects in Hanson Center's Inspire-a-Thon for AI Lafayette College	Spring 2025
Helped run a CS activity for Girl Scout Badge Day on Lafayette's campus Lafayette College	Spring 2025
Ran activity representing the Lafayette CS department at a local Family CS Night Wilson Area Intermediate School	Fall 2024
PhD Visit Days co-chair of Prospective Student Committee University of Washington	Winter 2024
Panelist for virtual panel about grad school Carleton College	Fall 2023
Coordinator for Diverse Genders in CSE Reception at PhD Visit Days University of Washington	Winter 2023
Grad student panelist for new grad orientation University of Washington	September 2019
PhD Visit Days Scheduler-in-Chief for NLP University of Washington	Winter 2019

Panelist for virtual panel about grad school Whitman College	October 2018
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UW NLP retreat organizer University of Washington	Summer/Fall 2018
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Miscellaneous Professional Development

RAISE Up Inclusive STEM Retreat run by the Hanson Center Lafayette College	Spring 2025
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Student Pedagogical Partnership program run by CITLS Lafayette College	Spring 2025
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Completed CITLS's <i>Designing Your First Lafayette Courses</i> Lafayette College	Summer 2024
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Previous Research Experience

Research Assistant in Natural Language Processing group with Noah A. Smith University of Washington	2017-2024
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Research project with Anna Rafferty Focus: Bayesian inference for diagnosing student misconceptions Carleton College	Summer 2015-Spring 2017
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Combinatorics and Algorithms for Real Problems REU University of Maryland, College Park	Summer 2016
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Awards and Honors

University of Washington Excellence in Teaching Award Finalist, 2024

Outstanding paper at ACL 2021

Grace Hopper 2016 Scholar

Damon Merit Scholarship, Carleton College, 2016

Phi Beta Kappa