Kristina Gligorić

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https://kristinagligoric.com/

Education

Stanford Dec. 2022 – Present

Postdoctoral Scholar, Computer Science Stanford CA, US

Mentor: Prof. Dan Jurafsky

EPFL Sep. 2017 – Nov. 2022

PhD in Computer and Communication Sciences Lausanne, Switzerland

Mentor: Prof. Robert West

PhD Thesis: Computational Approaches for Studying Dietary Behaviors with Digital Traces

Full text available at: URL

Thesis Committee: Munmun De Choudhury, Tim Althoff, Daniel Gatica-Perez, Martin Jaggi, Robert West

University of Novi Sad Sep. 2013 – Jul. 2017

Bachelor with Honors in Electrical and Computer Engineering

Selected awards

Rising Star in EECS (MIT), 2024

Rising Star in GenAI (University of Massachusetts Amherst), 2024

Rising Star in Data Science (University of Chicago), 2023

Cornell Future Faculty Symposium Scholar, 2023

EPFL Thesis Distinction (top 8% EPFL theses), 2023

ICWSM Best Reviewer Award, 2021, 2023

CSCW Special Recognition for Outstanding Review, 2022

CSCW Best Paper Honorable Mention Award, 2021

EPFL Dean's Recognition for Outstanding Performance, 2019, 2021

EPFL Best Teaching Assistant Award, 2018

EPFL Doctoral Fellowship for PhD Program in Computer Science, 2017

University of Novi Sad Award for Excellent Performance (top 2% students), 2015–2018

Grants

Swiss National Science Foundation Postdoc Grant, 2022 (\$130,000)

Stanford Plant Based Diet Initiative Seed Grant Funding, 2024 (Co-PI, \$10,000)

Stanford HAI Student Affinity Group lead (SocialNLP), 2023 (\$1,000)

ICWSM Student Grant, 2018, 2021 (\$1,000)

) DI (\$10.000) \mathbf{CV}

Novi Sad, Serbia

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Professional experience

Google Research Intern, mentors: Shailesh Bavadekar and Dr. Evgeniy Gabrilovich Jul. 2019 - Oct. 2019 Palo Alto CA, US

Max Planck Institute for Software Systems

Undergraduate Research Intern, mentor: Prof. Krishna P. Gummadi

Jul. 2016 - Oct. 2016 Saarbrucken, Germany

Research areas: Computational Social Science, AI & Society

In my research, I develop computational approaches to address societal issues such as online civility and sustainability. I leverage large language models, data science, and causal inference. I also reveal and mitigate the biases, limitations, and social harms of AI in social contexts.

My work has been published in top computational social science (CSS) venues: broad audience interdisciplinary journals (PNAS, Nature Communications, Harvard Data Science Review) and top computer science conferences focused on CSS (ICWSM, CSCW) and methodological contributions within the CSS (ACL^*) .

Manuscripts under review and in preparation

- *: Equal contributions, †: Advised students.
- 1. What can Large Language Models do for Sustainable Food? Anna Thomas*†, Kristina Gligorić*, Adam Yee, Andrew Mayne, Maya Mathur, and Dan Jurafsky. Manuscript in preparation.
- 2. The Impact of Meat-Free Days on the Carbon Footprint of a Campus-wide Food System. Giuseppe Russo, Kristina Gligorić, Mika Senghaas, Vincent Moreau, and Robert West. Manuscript in preparation.
- 3. Large-Scale Field Interventions to Foster Inclusive Moderation in Online Communities. MarYam Hamedani*, Kristina Gligorić*, Cinoo Lee*, Xuan Zhao, Hazel Markus, Jennifer L. Eberhardt. Manuscript in preparation.
- 4. Food Choice Mimicry on a Large University Campus. Kristina Gligorić, Arnaud Chiolero, Emre Kıcıman, Ryen W. White, Eric Horvitz, and Robert West. Preprint. Full text available at: URL.
- 5. Can Unconfident LLM Annotations Be Used for Confident Conclusions? Kristina Gligorić*, Tijana Zrnić*, Cinoo Lee*, Emmanuel Candès, and Dan Jurafsky. Preprint. Full text available at: URL.

Peer-reviewed publications

- *: Equal contributions, †: Advised students.
- 1. People who share encounters with racism are silenced online by humans and machines, but a guideline-reframing intervention holds promise.

Cinoo Lee*, Kristina Gligorić*, Ria Kalluri*, Maggie Harrington*, Esin Durmus, Kiara Sanchez, Nay San, Danny Tse†, Justine Zhang, Xuan Zhao, MarYam Hamedani, Hazel Markus, Dan Jurafsky, Jennifer L. Eberhardt.

Proceedings of the National Academy of Sciences (PNAS), 2024.

Full text available at: URL.

2. In-class Data Analysis Replications: Teaching Students while Testing Science.

Kristina Gligorić*, Tiziano Piccardi*, Jake Hofman, Robert West.

Harvard Data Science Review (HDSR), 2024.

Also presented at IC^2S^2 2023 (oral).

Full text available at: URL.

3. Measuring and Shaping the Nutritional Environment via Food Sales Logs: Case Studies of Campus-Wide Food Choice and a Call to Action.

Kristina Gligorić, Robin Zbinden†, Arnaud Chiolero, Emre Kiciman, Ryen W. White, Eric Horvitz, Robert West

Frontiers in Nutrition, 2024.

Full text available at: URL.

4. NLP Systems That Can't Tell Use from Mention can Censor Counterspeech, but Teaching the Distinction Helps.

Kristina Gligorić, Myra Cheng†, Lucia Zheng†, Esin Durmus, Dan Jurafsky.

Proceedings of the Conference of the North American Chapter of the Association for Computational Linguistics (NAACL), 2024.

Also presented at IC^2S^2 2024 (oral).

Full text available at: URL.

5. Grounding Gaps in Language Model Generations.

Omar Shaikh*†, **Kristina Gligorić***, Ashna Khetan†, Matthias Gerstgrasser, Diyi Yang, Dan Jurafsky.

Proceedings of the Conference of the North American Chapter of the Association for Computational Linguistics (NAACL), 2024.

Full text available at: URL.

6. Othering and low prestige framing of immigrant cuisines in US restaurant reviews and large language models. Yiwei Luo†, Kristina Gligorić, Dan Jurafsky.

Proceedings of the International AAAI Conference on Web and Social Media (ICWSM), 2024.

Also presented at IC^2S^2 2023 (oral).

Full text available at: URL.

7. AnthroScore: A Computational Linguistic Measure of Anthropomorphism.

Myra Cheng†, Kristina Gligorić, Tiziano Piccardi, Dan Jurafsky.

Proceedings of the Conference of the European Chapter of the Association for Computational Linguistics (EACL), 2024.

Also presented at IC^2S^2 2024 (oral).

Full text available at: URL.

8. Revealed versus potential spatial accessibility of healthcare and changing patterns during the COVID-19 pandemic.

Kristina Gligorić*, Chaitanya Kamath*, Daniel Weiss*, Shailesh Bavadekar, Yun Liu, Tomer Shekel, Kevin Schulman*, and Evgeniy Gabrilovich*.

Nature Communications Medicine, 2023.

Full text available at: URL.

9. Linguistic effects on news headline success: Evidence from thousands of online field experiments (Registered Report).

Kristina Gligorić, George Lifchits†, Robert West and Ashton Anderson.

PLOS ONE, 2023.

Full text available at: URL.

10. Biased Bytes: On the Validity of Estimating Food Consumption from Social Media Images.

Kristina Gligorić, Irena Djordjevic† and Robert West.

Proceedings of the ACM on Human-Computer Interaction (CSCW), 2022.

Also presented at IC^2S^2 2023 (oral).

Full text available at: URL.

11. Anticipated versus Actual Effects of Platform Design Change: A Case Study of Twitter's Character Limit. **Kristina Gligorić**, Justyna Czestochowska†, Ashton Anderson and Robert West.

Proceedings of the ACM on Human-Computer Interaction (CSCW), 2022.

Also presented at IC^2S^2 2023 (poster).

Full text available at: URL.

12. Population-scale dietary interests during the COVID-19 pandemic.

Kristina Gligorić, Arnaud Chiolero, Emre Kiciman, Ryen W White and Robert West.

Nature Communications, 2022.

Featured in Public Health Editors' Highlights.

Also presented at IC^2S^2 2022 (oral).

Full text available at: URL.

13. On the Context-Free Ambiguity of Emoji.

Justyna Czestochowska*†, **Kristina Gligorić***, Maxime Peyrard, Yann Mentha†, Michał Bień†, Andrea Grütter, Anita Auer, Aris Xanthos and Robert West.

Proceedings of the International AAAI Conference on Web and Social Media (ICWSM), 2022.

Full text available at: URL.

14. Laughing Heads: Can Transformers Detect What Makes a Sentence Funny?

Maxime Peyrard, Beatriz Borges†, Kristina Gligorić and Robert West.

Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI), 2021.

Full text available at: URL.

15. Formation of Social Ties Influences Food Choice: A Campus-wide Longitudinal Study.

Kristina Gligorić, Ryen W White, Emre Kiciman, Eric Horvitz, Arnaud Chiolero and Robert West.

Proceedings of the ACM on Human-Computer Interaction (CSCW), 2021.

Best Paper Honorable Mention Award.

Also presented at IC^2S^2 2021 (oral).

Full text available at: URL.

16. Linguistic effects on news headline success: Evidence from thousands of online field experiments (Registered Report Protocol).

Kristina Gligorić, George Lifchits†, Robert West and Ashton Anderson.

PLOS ONE, 2021.

Also presented at IC^2S^2 2022 (poster).

Full text available at: URL.

17. Sudden Attention Shifts on Wikipedia Following COVID-19 Mobility Restrictions.

Manoel Horta Ribeiro*, **Kristina Gligorić***, Maxime Peyrard*, Florian Lemmerich, Markus Strohmaier and Robert West.

Proceedings of the International AAAI Conference on Web and Social Media (ICWSM), 2021.

Also presented at IC^2S^2 2021 (oral).

Full text available at: URL.

18. Global maps of travel time to healthcare facilities.

Daniel Weiss, Andrew Nelson, Camilo Vargas-Ruiz, **Kristina Gligorić**, Shailesh Bavadekar, Evgeniy Gabrilovich, Amelia Bertozzi-Villa, Jennifer Rozier, Harry Gibson, Tomer Shekel, Chaitanya Kamath, Allison Lieber, Kevin Schulman, Yang Shao, Vesa Qarkaxhija, Anita Nandi, Suzanne Keddie, Susan Rumisha, Punam Amratia, Rohan Arambepola, Elisabeth Chestnutt, Justin Millar, Tasmin Symons, Ewan Cameron, Katerine Battle, Samir Bhatt and Peter Gething.

Nature Medicine, 2020.

Full text available at: URL.

19. Causal Effects of Brevity on Style and Success in Social Media.

Kristina Gligorić, Ashton Anderson and Robert West.

Proceedings of the ACM on Human-Computer Interaction (CSCW), 2019.

Also presented at IC^2S^2 2019 (oral).

Full text available at: URL.

20. Comparing and Developing Tools to Measure the Readability of Domain-Specific Texts. Elissa Redmiles, Lisa Maszkiewicz, Emily Hwang, Dhruv Kuchhal, Everest Liu, Miranda Morales, Denis Peskov, Sudha Rao, Rock Stevens, Kristina Gligorić, Sean Kross, Michelle Mazurek and Hal Daume III. Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP), 2019. Full text available at: URL.

21. Message Distortion in Information Cascades.

Manoel Ribeiro[†], **Kristina Gligorić** and Robert West.

Proceedings of the ACM on Web Conference (**TheWebConf**), 2019.

Also presented at IC^2S^2 2019 (oral).

Full text available at: URL.

22. How Constraints Affect Content: The Case of Twitter's Switch from 140 to 280 Characters.

Kristina Gligorić, Ashton Anderson and Robert West.

Proceedings of the International AAAI Conference on Web and Social Media (ICWSM), 2018.

Full text available at: URL.

23. Visible Light Communication Based Indoor Positioning via Compressed Sensing.

Kristina Gligorić, Manisha Ajmani, Dejan Vukobratović and Sinan Sinanović.

IEEE Communication Letters, 2018.

Full text available at: URL.

Teaching

Social NLP reading group (Stanford), Co-organized with Prof. Divi Yang Winter 2022-2023, Spring 2022-2023, Fall 2023-2024, Winter 2023-2024, Spring 2023-2024

Applied Data Analysis (EPFL CS-401), Head TA (300+ students, coordinating 20 teaching assistants) Fall 2018-2019, Fall 2019-2020, Fall 2020-2021, Fall 2021-2022

EPFL Best Teaching Assistant Award

Developed a replication activity and published the results (HDSR)

Data Visualization (EPFL COM-480), Teaching Assistant (100+ students) Spring 2019-2020, Spring 2020-2021

Analysis II (EPFL MATH-106), Teaching Assistant Spring 2018-2019

Leadership and Service

Organization of conferences

CSCW 2023 Meta Co-chair WebSci 2023 Proceedings Chair ICWSM 2022 Sponsorship Co-chair ICWSM 2021 Student Volunteer

Conference Program Area Chair

ICWSM 2023, 2024 CSCW 2024, 2024 EMNLP 2023

PC Member

FAccT 2024, IC²S² 2023, 2024 WSDM 2023, The WebConf 2022, 2023, ICWSM 2021, 2022, 2023, CIKM 2020, 2021, WebSci 2022, 2023, EMNLP 2021, ACL 2021, Wiki Workshop @ TheWebConf 2023, Wiki Workshop @ The Web Conf 2020, 2021, 2022, Euro CCS 2018, 2019

Ad-hoc Reviewer

ACL Student Research Workshop 2024, Journal of Statistics and Data Science Education 2024, COLM 2024, Nature Communications Medicine 2023, TheWebConf 2020, CSCW 2019, 2021, 2022, ICWSM 2020, 2022, ACL 2020, EPJ Data Science

Institutional responsibilities

PhD admissions committee Jan. 2022 (EPFL School of Computer and Communication Sciences)

Mentorship

To date, I advised 40+ PhD, master, undergraduate, and research internship students. For co-authored articles with mentored students, please see Publications.

Stanford PhD Students

2024: Anna Thomas, Lucia Zheng, Myra Cheng

2023: Omar Shaikh, Yiwei Luo

Stanford Summer Research Interns

2024: Sofia Kim

Stanford Undergraduate Research projects

2024: Bolu Aminu, Michael Brockman, Sofia Kim, Caeley Woo, and Ashna Khetan

2023: Danny Tse, Emily Wonyoung Park, and Natalie Carrie Wang

EPFL Master Student Research Projects

2021: Francis Murray, Marie Biolkova, Andrea Perozziello

2020: Justyna Czestochowska, Michał Bień, Jeremy Plassmann, Jonathan Labhard, Robin Zbinden, Nicolas Jomeau, Davit Martirosyan, Yann Mentha, George Lifchits

2019: Andre Adel Alphonse Ghattas, Beatriz Borges, Andrea Veneziano, Leonore Guillain, Maria-Smaranda Pandele

2018: Martin Milenkoski, Nicolas Zimmermann, Viktor Janevski, Stratos Triantafyllou

2017: Nuno Goncalves, Timothee Lottaz, Boris Fluckiger

EPFL Summer Research Interns

2021: Irena Djordjevic

2020: Gorjan Popovski

2018: Manoel Ribeiro

EPFL Undergraduate Student Research Projects

2020: Mohamed Elasfoury, Loic Houmard

Invited talks

- 1. May 2024, **USC**, Marina del Rey (Information Sciences Institute AI Seminar): Invited talk, AI for Fostering Constructive Online Conversations
- 2. May 2024, **EPFL Alumni West Coast Chapter**, San Francisco: Invited talk, *AI for Fostering Constructive Online Conversations*
- 3. May 2024, Stanford CS 224C: NLP for Computational Social Science Class: Invited talk, AI for Fostering Constructive Online Conversations
- 4. Apr 2024, **Université Grenoble Alpes**, (NLP team GetAlp Seminar): Invited talk, *AI for Fostering Constructive Online Conversations*
- 5. Apr 2024, **Cambridge University**, (Language Technology Lab Seminar): Invited talk, *AI for Fostering Constructive Online Conversations*
- 6. Jan 2024, **University of Toronto**: Invited talk at Toronto Data Workshop

7. Dec 2023, Stanford Race and NLP (CS 329R) Class:

Invited talk

8. Feb 2023, UC Berkeley (NLP Seminar):

Invited panelist, The Cassandra Project roundtable on What big data and big models bring to the table

9. Apr 2022, EPFL, Lausanne:

The Applied Machine Learning Days EPFL (Microsoft Swiss Joint Research Center track)

10. Feb 2022, The Wikimedia Research Showcase

11. Jun 2021, **EPFL**:

The Applied Machine Learning Days (AI & the response to the COVID-19 pandemic track)

Contributions to diversity and inclusion

ICWSM 2022 Sponsorship Chair

Raising funds to support diversity and inclusion efforts and registration fee subsidies for participants from under-represented groups.

Teaching and mentoring high-school students

Undergraduate Teaching Assistant at Petnica Science Center, Serbia, 2014 - 2017

Mentored summer projects, led tutorials including calculus, linear algebra, and programming languages.

Girls Coding

Volunteer at activities teaching girls between 9 and 16 years old to code.

References

1. Prof. Dan Jurafsky

Professor of Computer Science, Reynolds Professor in Humanities, and Professor of Linguistics

Stanford University

contact: jurafsky@stanford.edu

2. Prof. Robert West

Associate Professor of Computer Science

EPFL

contact: robert.west@epfl.ch

3. Dr. Eric Horvitz

Chief Scientific Officer

Microsoft

contact: horvitz@microsoft.com

4. Prof. Ashton Anderson

Associate Professor of Computer Science

University of Toronto

contact: ashton@cs.toronto.edu

5. Prof. Jennifer L. Eberhardt

The William R. Kimball Professor of Organizational Behavior and Professor of Psychology

Stanford University

contact: eberhard@stanford.edu