Katy Felkner

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EDUCATION
University of Southern California | Los Angeles, CA
- Ph.D. in Computer Science | Expected 2026 | Supported by **NSF Graduate Research Fellowship**
- Relevant Coursework: Advanced NLP, Representation Learning in NLP, Foundations of AI, Fairness in AI | **GPA: 3.88/4.00**

University of Oklahoma | Norman, OK
- B.S. in Computer Science *(summa cum laude)*, B.A. in Letters *(summa cum laude)* | May 2020 | **GPA: 4.00/4.00**

RELEVANT EXPERIENCE
NLP Fairness and Bias, USC Information Sciences Institute – Graduate Research Assistant JAN. 2022 – PRESENT
- Design novel, community-sourced benchmark datasets for detecting anti-LGBTQ+ and antisemitic bias in LLMs
- Develop, distribute, and analyze two large-scale community surveys to inform LLM bias benchmarks
- Design and evaluate novel finetuning methods to mitigate anti-LGBTQ+ bias in LLMs

DARPA ReMATH, USC Information Sciences Institute – Graduate Research Assistant JAN. 2021 – JUN. 2022
- Built and evaluated NMT models for extraction of symbolic math from assembly code and bit-vector expressions
- Developed novel metrics for evaluation of NMT-generated mathematical expressions

Border Translation Project, USC Information Sciences Institute – Graduate Research Assistant AUG. 2020 – DEC. 2021
- Built and evaluated neural machine translation systems for extremely low-resource languages
- Developed baseline NMT system for K'iche', a Mayan indigenous language, to help NGOs provide legal assistance

Los Alamos National Laboratory, Ultrascale Systems Research Center — Research Intern MAY 2020 – AUG. 2020
- Collected 750000 lines of non-secret syslog data using a 20-node virtual compute cluster
- Tested a variety of word embedding and clustering algorithms to extract natural language features from supercomputer syslog
- Showed that these NL features are not sufficient on their own but can be used to augment other models for failure detection

Epic Systems Corporation — Software Developer Intern MAY 2019 – AUG. 2019
- Prototyped a menstrual cycle tracking feature within MyChart for iOS to allow patients to share cycle data with providers
- Designed and implemented server and client-side data structures to save cycle data to the patient's medical record
- Conducted user research, including about 100 internal survey responses and 5 user interviews

SELECTED PUBLICATIONS
- **Virginia K. Felkner**, Jennifer A. Thompson, Jonathan May. *GPT is Not an Annotator: The Necessity of Human Annotation in Fairness Benchmark Construction.* Under Review. 2024.
- **Virginia K. Felkner**, Ho-Chun Herbert Chang, Eugene Jang, Jonathan May**.** *WinoQueer: A Community-in-the-Loop Benchmark for Anti-LGBTQ+ Bias in Large Language Models.* ACL 2023.
- **Virginia K. Felkner**, Ho-Chun Herbert Chang, Eugene Jang, Jonathan May**.** *Towards WinoQueer: Developing a Benchmark for Anti-Queer Bias in Large Language Models.* QueerInAI Affinity Group Workshop, NAACL 2022.
- Nicolaas Weideman, **Virginia K. Felkner**, Wei-Cheng Wu, Jonathan May, Christophe Hauser, Luis Garcia. *PERFUME: Programmatic Extraction and Refinement For Usability of Mathematical Expressions*. CheckMATE, ACM CCS 2021.

SELECTED PRESENTATIONS
- *Roundtable Discussion: Defining and Disrupting Antisemitism: Perspectives from Artificial Intelligence, Sociology, History, Law, and Ethics.* Association for Jewish Studies, December 2023.
- Invited Panelist on *Bias in Generative AI*. QueerInAI Workshop at NeurIPS, December 2023.
- Poster Presentation, *Anti-Queer Bias in LLMs*. CRA-WP Grad Cohort for Women, April 2023.

PROFESSIONAL AND COMMUNITY INVOLVEMENT
Conference Reviewing: EMNLP 2023, ACL 2023, EMNLP 2022 Theme Track
Queers in Engineering, Science and Technology (QuEST) — Graduate Representative SEP. 2020 – PRESENT
- 2022 oSTEM Region F Conference organizer: designed and led graduate and fellowship application workshop, spoke on Queer in Academia panel, organized and hosted charity livestream, raising $950 for LGBTQ community organizations in LA

HONORS AND AWARDS
National Science Foundation Graduate Research Fellowship	Viterbi Graduate School Fellowship
Gallogly College of Engineering Outstanding Senior	Outstanding Senior in Computer Science
Alpha Sigma Kappa National Outstanding Leader	Outstanding Greek Senior
Phi Beta Kappa Honor Society	Tau Beta Pi (National Engineering Honor Society)