

EMILY SHENG

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SUMMARY

Applied scientist specializing in evaluation of generative AI systems, with experience spanning LLM evaluation, responsible AI, NLP, fairness, and machine learning. 10+ years of industry and research experience, with a track record of translating research questions into empirical methods, evaluation frameworks, and practical tooling.

EXPERIENCE

SR APPLIED SCIENTIST

Sociotechnical Alignment Center at Microsoft Research

May 2022 – Present

Seattle, WA

- Developed methods for measuring and evaluating safety and capabilities of generative AI systems, translating emerging research questions into practical evaluation frameworks for AI practitioners
- Led research side of collaboration across research, science, policy, and engineering to turn evaluation research into open-source evaluation framework ([ASSERT](#)) for improving generative AI systems
- Designed and implemented empirical studies to test rigor of evaluation framework across different target concepts and against other existing approaches

MACHINE LEARNING ENGINEER

Twitter

Improved content health & fairness of the platform

July 2021 – May 2022

Los Angeles, CA

RESEARCH INTERN

Google

Evaluated and mitigated biases towards different demographics in a poetry composition system

May 2019 – April 2020

Mountain View, CA

SOFTWARE ENGINEERING INTERN

Google

Evaluated textual similarity across text lengths for bag-of-words and convolutional neural network model variants

May 2018 – Aug 2018

Mountain View, CA

SOFTWARE ENGINEER

Expect Labs

Prototyped classifier for domain-specific named entity recognition to improve a natural language understanding system, and full-stack development of developer platform tools

July 2014 – July 2015

San Francisco, CA

SKILLS

- **AI/ML:** generative AI (GenAI) evaluation, NLP, responsible AI, fairness, automated evaluation
- **Methods:** experimental design, human/LLM-as-a-judge annotation, measurement validity, disagreement/error analysis, dataset construction
- **Programming:** Python

SELECTED PUBLICATIONS

Agarwal, D. *, **Sheng, E. ***, Atalla, C., Garcia-Gathright, J., Mozannar, H., Washington, H., Chouldechova, A., Barocas, S., & Wallach, H. (2026). [AI-assisted systematization for evaluating GenAI systems.](#)

Harvey, E., **Sheng, E.**, Blodgett, S. L., Chouldechova, A., Garcia-Gathright, J., Olteanu, A., & Wallach, H. (2025). Understanding and meeting practitioner needs when measuring representational harms caused by LLM-based systems. In *Findings of the ACL 2025*.

Wallach, H., Desai, M., Cooper, A.F., Wang, A., Atalla, C., Barocas, S., Blodgett, S.L., Chouldechova, A., Corvi, E., Dow, P.A., Garcia-Gathright, J., Olteanu, A., Pangakis, N.J., Reed, S., **Sheng, E.**, Vann, D., Vaughan, J.W., Vogel, M., Washington, H., & Jacobs, A.Z. (2025). Position: Evaluating Generative AI Systems Is a Social Science Measurement Challenge. In *Proceedings of the 42nd ICML*.

Chouldechova, A., Atalla, C., Barocas, S., Cooper, A. F., Corvi, E., Dow, P. A., Garcia-Gathright, J., Pangakis, N., Reed, S., **Sheng, E.**, Vann, D., Vogel, M., Washington, H., & Wallach, H. (2024). A shared standard for valid measurement of generative AI systems' capabilities, risks, and impacts. In *NeurIPS 2024 Workshop on Statistical Foundations of LLMs and Foundation Models (SFLLM)*.

Magooda, A., Helyar, A., Jackson, K., Sullivan, D., Atalla, C., **Sheng, E.**, Vann, D., Edgar, R., Palangi, H., Lutz, R., Kong, H., Yun, V., Kamal, E., Zarfati, F., Wallach, H., Bird, S., & Chen, M. (2023). A framework for automated measurement of responsible AI harms in generative AI applications.

Dev, S.*, **Sheng, E.***, Zhao, J.*, Amstutz, A.*, Sun, J., Hou, Y., Sanseverino, M., Kim, J., Peng, N., Chang, K.-W. (2022). On Measures of Biases and Harms in NLP. In *Proceedings of AACL-IJCNLP-Findings 2022*.

Sheng, E. (Aug 2021). Fairness in Natural Language Generation. *PhD Thesis*.

EDUCATION

PH.D. IN COMPUTER SCIENCE

University of Southern California

Advisors: Dr. Prem Natarajan and Dr. Nanyun Peng

M.S. IN COMPUTER SCIENCE

University of Southern California

B.A. IN COMPUTER SCIENCE, COGNITIVE SCIENCE

University of California, Berkeley

PROFESSIONAL SERVICE

Reviewer for *ACL, EMNLP, FAccT, COLM, AAAI; Publicity Co-Chair (NAACL 2022)