

CHENG GUO

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EDUCATION

University of California, San Diego, Jacobs School of Engineering, La Jolla, CA

Expected June 2025

Master of Science

Major: Computer Science

GPA: 3.84

University of Washington, College of Engineering, Seattle, WA

June 2023

Bachelor of Science

Major: Human-Centered Design & Engineering (Data Science Option)

Minor: Drama (Acting)

GPA: 3.82 (Dean's list - All Quarters)

Relevant Courses: Machine Learning; Natural Language Processing; Deep Learning; Introductory Computer Programming (Python, Java, C/C++, R); Data Structures and Algorithms; Algorithms and Computational Complexity; Design and Analysis of Algorithms; Computability and Complexity; Web Mining; Recommender Systems; Database Systems; Advanced Multivariate Calculus; Differential Equation; Matrix Algebra; Real Analysis; Probability; Elements of Statistical Methods; Statistical Methods in Engineering and Science; Interactive System Design; User-Centered Design; User Research

PUBLICATION

- **Cheng Guo**, Yanfu Liu, Yue Yuan, Wuhao Zhang, Sourojit Ghosh. (2024). Text Characteristics Vector: Rethinking Human-Centered Sentiment Analysis with Emotion-Related Text Characteristics. In The 26th International Conference on Human-Computer Interaction (HCII), 2024.
- Sourojit Ghosh, Murtaza Ali, Anna Batra, **Cheng Guo**, Mohit Jain, Joseph Kang, Julia Kharchenko, Varun Suravajhela, Vincent Zhou, and Cecilia Aragon. (2023). "Do we like this, or do we like like this?" : Reflections on a Human-Centered Machine Learning Approach to Sentiment Analysis. In International Conference on Human-Computer Interaction, pp. 63-82. Cham: Springer Nature Switzerland, 2023.
- Yunhe Feng, **Cheng Guo**, Bingbing Wen, Peng Sun, Yufei Yue, and Dingwen Tao. (2022). EmojiCloud: a Tool for Emoji Cloud Visualization. In Proceedings of the 5th International Workshop on Emoji Understanding and Applications in Social Media at 2022 Annual Conference of the North American Chapter of the Association for Computational Linguistics (EMOJI@NAACL), pp. 69-74. 2022.

RESEARCH EXPERIENCE

LLM Interpretability and Causal Inference Benchmark Dataset Project, University of California, San Diego, CA, *Student Researcher*

Apr. 2024 – Present

- Initiate research project with the help of Dr. Amir Feder at Columbia University
- Develop prompting strategy for ChatGPT on generate counterfactuals based on a causal graph
- Generate counterfactual senator tweets and speech as if they come from a senator of another identity with ChatGPT and analyze their political ideology

Human-Centered Natural Language Processing Directed Research Group, University of Washington, Seattle, WA, *Research Assistant*

Jan. 2022 – July 2023

- Collaborate with a team of 9 peers working on the Emotion Classifier Project under Prof. Cecilia Aragon
- Program in Python with the UW Hyak supercomputer to classify emotions with a 672 GB text dataset
- Lead a team of 5 peers researching sentiment classification with text characteristics (like capitalizations or exclamation marks)
- Work within the Data Visualization team to use Tableau and Seaborn to visualize inter-rater reliability in the Emotion Classifier Project.

InfoSeeking Lab, University of Washington, Seattle, WA, *Research Assistant*

Apr. 2021 – May 2022

- Collaborate with a team of 10 peers in a Summer Incubation Project developing an intelligent agent for cellphones under Prof. Chirag Shah
- Develop EmojiCloud, a tool for emoji cloud visualization with Dr. Yunhe Feng
- Analyze data and create visualizations on Twitter privacy project and biases in image search project

SKILLS

Programming: Python, Java, C/C++, R, SQL, LaTeX, MATLAB

Software: PyTorch, TensorFlow, Microsoft Azure AI Platform, Amazon Mechanical Turk, SLURM Workload Manager

Language: English (Fluent), Chinese (Native), German (Elementary)

VOLUNTEERING EXPERIENCE

Volunteer at the 2024 International Conference on Human-Computer Interaction (HCII), Washington DC

Jul. 2024

Volunteer at the 2022 Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL), Seattle, WA

Jul. 2022