

Research Interests

Machine Learning, Multimodal Intelligence, Natural Language Processing, Information Retrieval.

Education

- 09/24-06/25 **MEng in Electrical Engineering and Computer Science, MIT.**
(Expected) Thesis Topic: Multimodal Synthesis and Creation, Gesture Understanding, Grounded LLMs
Thesis Advisor: Paul Pu Liang
- 9/21-06/25 **BS in Mathematics, Electrical Engineering and Computer Science, MIT.**
(Expected) GPA: **4.9/5.0**
Coursework: Quantitative Methods for Natural Language Processing, Project Laboratory in Mathematics

Research Experience

- 08/24- **Multisensory Intelligence Group, PI: Paul Pu Liang.**
Present
 - Creating benchmark for multimodal synthesis and content creation of music videos
 - Building benchmark of mime performance videos for emotion analysis from gesture
 - Grounding LLMs in the physical world by connecting them to sensor data representations
- 05/23- **University of Texas at Austin NLP Group, PIs: Junyi Jessie Li and Byron Wallace.**
Present
 - Co-lead for project on social media medical claim checking with multi-document RCT abstract retrieval and synthesis. Working with six medical experts on annotation pipeline
 - Published research on factuality evaluation of plain language summarization of medical evidence at ACL 2024. Performed experiments, metrics evaluation, and results analysis
- 6/22-8/22 **Martin Rinard Lab.**
 - Analyzed mechanistic interpretability of CodeGen models trained on Karel language
 - Created tool for attention visualizations to study patterns of Karel rules to state [\[example\]](#)

Publications

Conference

FACTPICO: Factuality Evaluation for Plain Language Summarization of Medical Evidence.
Sebastian Joseph, **Lily Chen***, Jan Trienes, Hannah Louisa Göke, Monika Coers, Wei Xu, Byron C Wallace, Junyi Jessie Li.*
Association for Computational Linguistics (ACL), 2024. [\[link\]](#)

Workshop

Analyzing Gender Accuracy and Gender Quality in Multilingual Machine Translation with Large Language Models.
Sarah Zhang, **Lily Chen***, William Zhang.*
Widening Natural Language Processing (WiNLP) Workshop at EMNLP, 2023. [\[link\]](#)

Industry Experience

- 6/22-8/22 **DRW Holdings, LLC, Quantitative Trading Intern, Chicago, IL.**
 - Completed quantitative research project of Bayesian Skew Fitter for crypto options
 - Researched and implemented proprietary options trading strategies, shadowed desks
- 1/22-2/22 **Hudson River Trading, Crypto Tech Intern, New York City.**
 - Built an optimal routing algorithm for pathfinding between crypto liquidity pools
 - Researched DeFi technologies, helped build DEX (Decentralized Exchange) aggregator

Selected Awards

For PhD

2023 GFSD PhD Fellowship – full tuition and \$20,000 stipend for 6 years

For master's

2024 AAUW Selected Professions Fellowship – \$20,000

2023 ASQ Ellis R Ott Scholarship – \$7,500

For bachelor's

2024 Two Sigma Undergraduate Scholarship – \$15,000

2023-2024 NSF CRA-WP DREU Program –\$7,000

2022-2024 Live Más Scholarship –\$10,000

2023 Cognizant Trust & Safety Scholarship –\$10,000

2023 Raytheon Technologies Scholarship –\$10,000

2023 NAVISITE Next Stemminist Scholarship – \$10,000

2023 Hedy Lamarr Achievement Award –\$7,500

2023 Cadence Diversity in Technology Scholarship –\$5,000

2023 Nutanix Advancing Women in Technology Award –\$5,000

2023 NSPE Auxiliary Legacy Scholarship – \$5,000

2023 Zonta International Women in STEM Scholarship –\$5,000

2023 Interface Systems Tech for Good Scholarship –\$5,000

2023 ISSAEF Scholarship –\$3,500

2023 Prysmian Women in STEM Scholarship –\$2,500

2023 SBB Research Group Scholarship –\$2,500

2022 Malwarebytes Scholarship – \$10,000

2022 FS-ISAC Scholarship – \$10,000

2022 SIA Women in Security Forum Scholarship – \$10,000

2022 Ridgeline International Scholarship – \$5,000

2022 Society of Women Engineers Scholarship –\$5,000

2022 ISC(2) Undergraduate Scholarship –\$3,000

2022 MIT Chevron Prize –\$2,000

2022 VMware Achievement Scholarship –\$10,000

2021 Coca Cola Scholarship – \$20,000

Activities

09/22-05/23 MIT Society of Women Engineers, Board of Technology.

09/22-05/23 MIT Women in EECS, Mentor.

Teaching

Spring 2023 18.062: Mathematics for Computer Science, Teaching Assistant, MIT.

Skills

Languages English (fluent), Mandarin Chinese (fluent), Spanish (intermediate)

Programming Python, C, Java, TypeScript, Minispec

Software PyTorch, NumPy, pandas, Hugging Face, seaborn, L^AT_EX