Research Interests

Human-centered AI, Multimodal AI, AI for Health, Signal Processing, and Statistics.

Education

09/24-05/25 MEng in Electrical Engineering and Computer Science, MIT.

Thesis Advisor: Paul Liang

Thesis: Grounding Time Series in Language: Interpretable Reasoning with Large Language Models

GPA: **5.0/5.0**

09/21-05/25 BS in Mathematics, Electrical Engineering and Computer Science, MIT.

GPA: 4.9/5.0

Research Experience

09/24-Present Multisensory Intelligence Group, PI: Paul Liang.

o Developed a method to ground time series in language for interpretable reasoning with LLMs

05/23-Present University of Texas at Austin NLP Group, Pls: Junyi Jessy Li and Byron Wallace.

• Co-led projects on biomedical text summarization and medical fact-checking

Publications

Decide less, communicate more: On the construct validity of end-to-end fact-checking in medicine.

Sebastian Joseph*, **Lily Chen***, Barry Wei, Michael Mackert, Iain J. Marshall, Paul Pu Liang, Ramez Kouzy, Byron C. Wallace, Junyi Jessy Li.

arXiv preprint. [link]

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 Jessy Li.

Association for Computational Linguistics (ACL), 2024. [link]

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

06/22-08/22 **DRW Holdings, LLC**, *Quantitative Trading Intern*, Chicago, IL.

o Completed quantitative research project of Bayesian Skew Fitter for crypto options

01/22-02/22 Hudson River Trading, Crypto Tech Intern, New York City.

Researched DeFi technologies and helped build DEX (Decentralized Exchange) aggregator

Selected Awards

For Doctoral Studies

2025 DOE CSGF Fellowship (Math/CS Track) - full tuition and \$45,000 stipend for 4 years

2025 Wireless History Foundation Scholarship - \$7,500

- 2023 GFSD PhD Fellowship full tuition and \$20,000 stipend for 6 years (declined)
 - For Master's
- 2024 AAUW Selected Professions Fellowship \$20,000
- 2023 ASQ Ellis R Ott Scholarship \$7,500

For Bachelor's

- 2024 MIT Prize for Open Data \$2,500
- 2024 Two Sigma Undergraduate Scholarship \$15,000
- 2023-2024 NSF CRA-WP DREU Program (Mentored by Junyi Jessy Li) \$7,000
 - 2023 Zonta International Women in STEM Scholarship \$5,000
 - 2021 Coca Cola Scholarship \$20,000 (150 recipients/99,403 applicants)

Academic Service

- Spring 2023 Teaching Assistant for Mathematics for Computer Science, MIT.
- Spring 2023 MIT PRIMES Circle Mathematics Mentor.
- Spring 2023 MIT Math Learning Center Tutor.

Skills

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

Programming Python, C, Java

Software PyTorch, NumPy, pandas, Hugging Face, seaborn, LATEX