# Andy Liu

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#### **♦** EDUCATION

2023 - Present Carnegie Mellon University, Pittsburgh, PA

Ph.D. in Language and Information Technologies

Advisors: Mona Diab, Daniel Fried

Cumulative GPA: 4.08

Relevant Coursework: Large Language Models, Quantitative Evaluation of Language Technologies, Deep Reinforcement Learning, Multimodal Machine Learning, Machine Learning  $\mathring{\sigma}$  Game

Theory, Advanced Natural Language Processing, Cooperative AI

2019 - 2023 Harvey Mudd College (HMC), Claremont, CA

B.S. IN COMPUTER SCIENCE & MATHEMATICS

CONCENTRATION IN SCIENCE, TECHNOLOGY, AND SOCIETY

## ♦ HONORS & AWARDS

2025	NSF Graduate Research Fellowship
2023	DEPARTMENTAL HONORS, HMC
2019 - 2023	Harvey S. Mudd Merit Award, HMC
2019 - 2023	LOCKHEED MARTIN STEM SCHOLARSHIP
2019 - 2023	NATIONAL MERIT SCHOLARSHIP

## **♦ PUBLICATIONS**

#### Conference Proceedings —

- Wenkai Li\*, Jiarui Liu\*, **Andy Liu**, Xuhui Zhou, Mona Diab, and Maarten Sap. "BIG5-CHAT: Shaping LLM Personalities Through Training on Human-Grounded Data." *Annual Meeting of the Association for Computational Linguistics*, 2025.
- Andy Liu\*, Abhishek Kulkarni\*, Jean-Raphaël Gaglione, Daniel Fried, and Ufuk Topcu. "Dynamic Coalition Structure Detection in Natural-Language-based Interactions." *The Twenty-Fourth International Conference on Autonomous Agents and Multi-Agent Systems*.
- Andy Liu, Mona Diab, and Daniel Fried. "Evaluating Large Language Model Biases in Persona-Steered Generation." Findings of the Association for Computational Linguistics, 2024.
- Andy Liu, Hao Zhu, Emmy Liu, Yonatan Bisk, and Graham Neubig. "Computational Language Acquisition with Theory of Mind." *The Eleventh Annual International Conference on Learning Representations.*

#### Workshop Papers —

Kushal Agrawal\*, Verona Teo\*, Juan J Vazquez\*, Sudarsh Kunnavakkam, Vishak Srikanth, and **Andy Liu**. "Evaluating LLM Agent Collusion in Double Auctions." *Multi-Agent Systems in the Era of Foundation Models @ ICML 2025*.

## Preprints & Manuscripts −

Andy Liu, Kshitish Ghate, Mona Diab, Daniel Fried, Atoosa Kasirzadeh, and Max Kleiman-Weiner. "Generative Value Conflicts Reveal LLM Priorities."

Kshitish Ghate, **Andy Liu**, Devansh Jain, Taylor Sorensen, Atoosa Kasirzadeh, Aylin Caliskan, Mona T. Diab, and Maarten Sap. "EVALUESTEER: Measuring Reward Model Steerability Towards Values and Preferences."

#### ♦ TEACHING

Fall 2022 NATURAL LANGUAGE PROCESSING (CSCI 159), Teaching Assistant, HMC
Fall 2021 PRINCIPLES OF COMPUTER SCIENCE (CSCI 060), Teaching Assistant, HMC

## ♦ INTERNSHIPS & ASSISTANTSHIPS

## - Industry -

8/25 - 12/25 **Meta**, Seattle, WA

RESEARCH SCIENTIST INTERN, FAIR Communication & Language

Supervisor: Ruta Desai

Researching post-training strategies to help LLM agents better coordinate with new partners in collaborative tasks.

9/22 - 5/23 **eBay**, San Jose, CA

CAPSTONE TEAM PROJECT MEMBER, Member to Member Messaging

Supervisor: Kishore Paul

Developed clustering and sentiment analysis techniques to analyze Member-to-Member messaging on eBay and predict consumer outcomes.

#### Academia –

1/22 - 5/23 HMC Department of Computer Science, Claremont, CA

UNDERGRADUATE RESEARCHER, Lab for CATS (Cognition and Attention over Time and Space)

Advisor: Calden Wloka

Fine-tuned models for action recognition on 3D video input, then used GradCAM-based network visualization techniques to analyze neural network attention and interpret model failure cases.

## 5/22 - 8/22 CMU Language Technologies Institute, Pittsburgh, PA

RESEARCH INTERN, NeuLab

Advisors: Graham Neubig, Yonatan Bisk

Studied computational models of reinforcement learning-based language learning agents to study the influences of theory of mind modeling and environmental pressures on language acquisition.