Mina Lee

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CURRENT

2023–24   **Microsoft Research**
Postdoctoral Researcher in Computational Social Science

2024–   **University of Chicago**
Assistant Professor in Computer Science and Data Science

EDUCATION

2017–23   **Stanford University**
Ph.D. in Computer Science
Advisor: Percy Liang
Thesis: Designing and Evaluating Language Models for Human Interaction

2012–16   **Korea University**
Bachelor of Science in Computer Science and Engineering

2014–15   **University of British Columbia**
Exchange Student in Computer Science

PUBLICATIONS

denotes equal contribution

2023   **Evaluating Human-Language Model Interaction**
Mina Lee, Megha Srivastava, Amelia Hardy, John Tickstun, Esin Durmus, Ashwin Paranjape, Ines Gerard-Ursin, Xiang Lisa Li, Faisal Ladhak, Frieda Rong, Rose E. Wang, Minae Kwon, Joon Sung Park, Hancheng Cao, Tony Lee, Rishi Bommasani, Michael Bernstein, Percy Liang
*Transactions on Machine Learning Research (**TMLR**)*

        Towards Explainable AI Writing Assistants for Non-native English Speakers
Yewon Kim, Mina Lee, Donghwi Kim, Sung-Ju Lee
*Conference on Human Factors in Computing Systems (**CHI**) Workshop on Intelligent and Interactive Writing Assistants*

2022   **TempLM: Distilling Language Models into Template-Based Generators**
Tianyi Zhang, Mina Lee*, Lisa Li*, Ende Shen*, Tatsunori Hashimoto
*Association for Computational Linguistics (**ACL**)*

        CoAuthor: Designing a Human-AI Collaborative Writing Dataset for Exploring Language Model Capabilities
Mina Lee, Percy Liang, Qian Yang
*Conference on Human Factors in Computing Systems (**CHI**)* 🏆 ***Honorable Mention Award***

2021   **On the Opportunities and Risks of Foundation Models**
§2.5 Interaction: Joon Sung Park, Chris Donahue, Mina Lee, Siddharth Karamcheti, Dorsa Sadigh, Michael Bernstein
§5.5 Economics: Zanele Munyikwa, Mina Lee, Erik Brynjolfsson
Preprint

        Swords: A Benchmark for Lexical Substitution with Improved Data Coverage and Quality
Mina Lee*, Chris Donahue*, Robin Jia, Alexander Iyabor, Percy Liang
*North American Chapter of the Association for Computational Linguistics (**NAACL**)*

2020   **Enabling Language Models to Fill in the Blanks**
Chris Donahue, <u>Mina Lee</u>, Percy Liang
*Association for Computational Linguistics (**ACL**)*

2019   **Learning Autocomplete Systems as a Communication Game**
<u>Mina Lee</u>, Tatsunori Hashimoto, Percy Liang
*Neural Information Processing Systems (**NeurIPS**) Workshop on Emergent Communication*

2018   **SPoC: Search-based Pseudocode to Code**
Sumith Kulal, Panupong Pasupat, Kartik Chandra, <u>Mina Lee</u>, Oded Padon, Alex Aiken, Percy Liang
*Neural Information Processing Systems (**NeurIPS**)*

2016   **Synthesizing Regular Expressions from Examples for Introductory Automata Assignments**
<u>Mina Lee</u>[*], Sunbeom So[*], Hakjoo Oh
*Generative Programming: Concepts and Experiences (**GPCE**)*   🏆 *Best Paper Award*

TEACHING EXPERIENCE

Teaching assistant

2023   **Natural Language Understanding (CS224U)**, Stanford University
Graduate level course, 200+ students (Instructor: Christopher Potts)

2022   **Foundations of Computer Programming (CS49)**, Foothill College
Introductory level course, 10 students (Instructor: Eric Reed)

2020   **Natural Language Processing with Deep Learning (CS224N)**, Stanford University
Undergraduate level course, 500+ students (Instructor: Christopher Manning)

2015   **Basics of Computer Systems (CPSC261)**, University of British Columbia
Undergraduate level course (Instructor: Patrice Belleville)

Related program

2022   **Preparing Future Professors**, Stanford University & Foothill College
Shadowed Professor Eric Reed at Foothill College during lectures, office hours, department meetings, and other optional meetings to experience faculty life at a teaching-focused community college.

SELECTED HONORS AND AWARDS

2022   **Innovators Under 35 Korea**, MIT Technology Review
       Honorable Mention Award, Conference on Human Factors in Computing Systems (CHI)
2017   **School of Engineering Graduate Fellowship**, Stanford University
       Doctoral Study Abroad Scholarship, Korea Foundation for Advanced Studies
2016   **Best Paper Award**, Generative Programming: Concepts and Experiences (GPCE)
2015   **National Science and Engineering Scholarship**, Korea Student Aid Foundation
2015   **Dean's List**, Korea University

PANELS

2023   **LLMs and the Infrastructure of CSCW**
Conference on Computer-Supported Cooperative Work & Social Computing (CSCW) (2023.10)

       AI Writing in Class: Disruption and Opportunity
Digital Universities (2023.5)

       Art + Tech Salon
Stanford Arts and Stanford Institute for Human-Centered Artificial Intelligence (2023.4)

TALKS

Guest lectures

2023   **How can (and cannot) machines support (academic) writing?**
Pennsylvania State University, IST597-001: Intelligent and Interactive Writing Assistants (2023.10)

Designing and Evaluating Language Models for Human Interaction
University of Texas–Austin, CS395T: Topics in Natural Language Processing (2023.10)
Seoul National University, 2023 AI Summer School (2023.8)
Stanford University, CS329X: Human-Centered NLP (2023.4)
Cornell University, INFO3450: Human-Computer Interaction Design (2023.4)
University of California–Berkeley, INFO290: Human-Centered AI (2023.4)
Northeastern University, ARTG5000.2: Human-Centered Artificial Intelligence (2023.4)
Massachusetts Institute of Technology, MAS.S68: Generative AI for Constructive Communication–Evaluation and New Research Methods (2023.3)

Writing with Language Models
Microsoft Research, AI, Cognition, and the Economy (AICE) Workshop (2023.10)

Prompters Before Prompts and Promptees
Stanford University, CS224U: Natural Language Understanding (2023.4)

2022   **CoAuthor: Designing a Human-AI Collaborative Writing Dataset**
Seoul National University, AI773: Special Topics in Artificial Intelligence (2022.6)
Korea Advanced Institute of Science and Technology, AI599: Special Topics in Machine Learning (2022.5)

2021   **Writing with AI**
Cornell University, INFO4940: Human-AI Interaction Design Research (2021.11)
Seoul National University, 2021 AI Summer School (2021.8)

Invited talks

2023   **Designing and Evaluating Language Models for Human Interaction**
Sungkyunkwan University (2023.5)
University of Illinois Urbana-Champaign (2023.3)
University of Southern California (2023.3)
New York University (2023.3)
University of Chicago (2023.2)
Virginia Tech (2023.3)
Adobe (2023.2)
Emory University (2023.2)
Microsoft Research (2023.2)
University of Hawaii (2023.1)

2022   **AI's Ability to Interact with Humans**
Simons Institute for the Theory of Computing, Summer Cluster: AI and Humanity (2022.7)

2022   **Writing with AI**
Chung-Ang University, Department of Artificial Intelligence (2022.9)
Grammarly, AI-NLP Club (2022.8)
Korea Advanced Institute of Science and Technology, School of Electrical Engineering (2022.2)

2021   **Writing with AI**
University of Minnesota–Twin Cities, Minnesota NLP Seminar (2021.10)

2020   **Learning Autocomplete Systems via Unsupervised, Weakly Supervised, Supervised Learning**
Square (2020.7)

Mentoring sessions

2023   **Career Mentoring for Undergraduate Students**
Korea University Institute of Computer Security (2023.7)

2021   **My Unexpected Research Journey**
Florida Polytech University, CAP4770: Data Mining and Text Mining (2021.11)

MENTORING EXPERIENCE

One-on-one mentoring

2022–Now   **Yewon Kim** (Master's Student at Korea Advanced Institute of Science and Technology)
Co-supervised with Professor Sungju Lee.
AI writing tools' impact on non-native speakers (ongoing project).

2022   **Tianyi Zhang** (Ph.D. Student at Stanford University)
Co-supervised with Professor Tatsunori Hashimoto.
Template-based generative models (preprint released on arXiv).

2020   **Alexander Iyabor** (Master's Student at Stanford University)
Co-supervised with Chris Donahue through Stanford CS Summer Undergraduate Research Program.
Contextual thesaurus systems (paper published at NAACL).

2019–20   **WenXin Dong** (Undergraduate Student at Stanford University)
Mentored CS224N final project and continued providing career advice.
Keywords to story generation (report).

Group mentoring

2022–Now   **Project Lead for 15 Students** (Postdocs, Ph.D. Students, and Master's Students at Stanford University)
Mentored 5 project teams (1–6 students per team) as part of the benchmarking project at Stanford CRFM.
Supervised and supported overall process of designing tasks and experiments, implementing frontend and backend,
and performing data collection and analysis over a year.

2020   **Mentor for 13 Class Final Project Teams** (Undergraduate and Master's Students at Stanford University)
Mentored 13 project teams (1–3 students per team) for CS224N final projects.
Helped students with designing research projects, implementing systems, and writing reports for three months.

Large-scale mentoring

2017–Now   **Email Counseling for 100+ Students** (Prospective Students from Various Schools in Korea)
Provided advice to Korean students who are interested in applying to graduate schools in the US.

2017   **Book on Applying to Graduate Schools in the US** (2400+ copies sold in Korea)
Published a book on applying to graduate schools in the US.

INDUSTRY EXPERIENCE

2018   **Meta (formerly Facebook)** (Software Engineer Intern)
Built a neural code search system to find PyTorch functions given a natural language query and code as input.

2015   **Trap Danmark** (Software Engineer Intern)
Designed a mobile application for Danish topographic encyclopedia using Mapbox API.

PROFESSIONAL SERVICE

Workshop

2024	**Organizing committee** for Human Centered Evaluation and Auditing of Large Language Models (CHI)
2023	**Organizing committee** for Intelligent and Interactive Writing Assistants (CHI)
2022	**Organizing committee** for Intelligent and Interactive Writing Assistants (ACL)
2021	**Program committee** for Controllable Generative Modeling in Language and Vision (NeurIPS)

Paper reviewing

HCI	**CHI** 2023-2024, **CSCW** 2023, **DSI** 2023, **TOCHI** 2023
NLP	**ACL** 2021, **NAACL** 2022, **EMNLP** 2022
AI	**ICLR** 2021/2024, **NeurIPS** 2021-2022

Community service

2021	**Panelist**, Stanford WiCS PhD Info Session
	Panelist, Stanford CS Admit Weekend Q&A
2019–20	**Organizer**, Stanford NLP Lunch
2018	**Student Volunteer**, ICML 2018
2017	**Student Volunteer**, SPLASH 2017

MEDIA COVERAGE

2022	**MIT Technology Review Korea Announces Korean Winners of 'Innovators Under 35'**
	MIT Technology Review (2022.11)
	Searching for the 'Second Zuckerberg' That Will Shake the World
	Maeil Business Newspaper (2022.11)
	[IU 35 Korea] Mina Lee (Stanford University)—AI Language Model
	ETNews (2022.11)
	Could AI Help You to Write Your Next Paper?
	Nature (2022.10)
	AI Writing Assistants: A Cure for Writer's Block or Modern-Day Clippy?
	PCMag (2022.9)
	Huge "Foundation Models" are Turbo-charging AI Progress
	The Economist (2022.6)
	He Writes His Next Screenplay with an AI and the Result Fascinates Him
	LADN (2022.6)
	Meet CoAuthor, an Experiment in Human-AI Collaborative Writing
	Stanford Human-Centered Artificial Intelligence (2022.5)
	Written by AI? Can AI Really Write?
	KT DX Insight (2022.1)
2021	**At Stanford, Supportive Group Culture Leads to Increased Learning Opportunities**
	AI Times (2021.5)
2018	**Stanford School of Engineering Spotlights: Mina Lee**
	Stanford School of Engineering (2018.7)