Mina Lee

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EMPLOYMENT

2024- University of Chicago

Assistant Professor in Computer Science, Data Science, and Cognitive Science (affiliated)

2023-24 Microsoft Research

Postdoctoral Researcher in Computational Social 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

PUBLICATIONS *denotes equal contribution

2024 Building Machines that Learn and Think with People

Katherine M. Collins, Ilia Sucholutsky, Umang Bhatt, Kartik Chandra, Lionel Wong, <u>Mina Lee</u>, Cedegao E. Zhang, Tan Zhi-Xuan, Mark Ho, Vikash Mansinghka, Adrian Weller, Joshua B. Tenenbaum, Thomas L. Griffiths *Preprint*

A Design Space for Intelligent and Interactive Writing Assistants

Mina Lee, Katy Ilonka Gero, John Joon Young Chung, Simon Buckingham Shum, Vipul Raheja, Hua Shen, Subhashini Venugopalan, Thiemo Wambsganss, David Zhou, Emad A. Alghamdi, Tal August, Avinash Bhat, Madiha Zahrah Choksi, Senjuti Dutta, Jin L.C. Guo, Md Naimul Hoque, Yewon Kim, Seyed Parsa Neshaei, Agnia Sergeyuk, Antonette Shibani, Disha Shrivastava, Lila Shroff, Jessi Stark, Sarah Sterman, Sitong Wang, Antoine Bosselut, Daniel Buschek, Joseph Chee Chang, Sherol Chen, Max Kreminski, Joonsuk Park, Roy Pea, Eugenia H. Rho, Shannon Zejiang Shen, Pao Siangliulue

Conference on Human Factors in Computing Systems (CHI)

How Non-native English Speakers Use, Assess, and Select AI-Generated Paraphrases with Information Aids

Yewon Kim, Thanh-Long V. Le, Donghwi Kim, Mina Lee, Sung-Ju Lee Preprint

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)

Mina Lee, Percy Liang, Qian Yang Conference on Human Factors in Computing Systems (CHI) Phonorable 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, Mina Lee, Percy Liang Association for Computational Linguistics (ACL) 2019 Learning Autocomplete Systems as a Communication Game Mina Lee, 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, Mina Lee, Oded Padon, Alex Aiken, Percy Liang Neural Information Processing Systems (NeurIPS) 2016 Synthesizing Regular Expressions from Examples for Introductory Automata Assignments Mina Lee, Sunbeom So, Hakjoo Oh Generative Programming: Concepts and Experiences (GPCE) * Best Paper Award 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 **TEACHING EXPERIENCE** Instructor 2024 **Introduction to Computer Science I (CS141)**, University of Chicago Undergraduate level course

CoAuthor: Designing a Human-AI Collaborative Writing Dataset for Exploring Language Model Capabil-

Topics in NLP and HCI: Writing with Artificial Intelligence (CS332), University of Chicago

Natural Language Processing (CS257), University of Chicago

Undergraduate and graduate level course

Graduate level seminar course

2025

2025

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 (C\$224N), 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.

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.

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)

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)

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)

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

2022–24 **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

2022–23 **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

2017–23 **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.

PROFESSIONAL SERVICE

Workshop

2024	Organizing committee for Human Centered Evaluation and Auditing of Large Language Models (CHI)
2022	Organizing committee for Intelligent and Interactive Writing Assistants (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 2023-2025, 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)