

# Mina Lee

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🏡 [minalee-research.github.io](https://minalee-research.github.io)

## RESEARCH INTERESTS

**Writing, Reading, and Thinking with AI:** How does AI change how we write, what we write, and who we are as writers?

I design and evaluate AI systems, identify opportunities and risks of AI-assisted writing, reading, and thinking, and assess AI's impact using methods such as user studies, controlled experiments, and surveys. My research also examines broader implications: how AI may reshape social norms around authorship, transform education, and influence everyday communication. I collaborate with researchers in computer science as well as in interdisciplinary areas including psychology, education, and media.

Human-Computer Interaction (HCI) · Natural Language Processing (NLP) · Computational Social Science (CSS)

## 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

<sup>\*</sup>denotes equal contribution

2025 **3-Week High School LLM Literacy Course: Syllabus, Projects, and Activities**  
Grace Li, [Mina Lee](#)  
*Neural Information Processing Systems (NeurIPS) Education Materials*

**Unraveling Misinformation Propagation in LLM Reasoning**  
Yiyang Feng, Yichen Wang, Shaobo Cui, Boi Faltings, [Mina Lee](#), Jiawei Zhou  
*Findings of Empirical Methods in Natural Language Processing (Findings of EMNLP)*

**Understanding, Protecting, and Augmenting Human Cognition with Generative AI: A Synthesis of the CHI 2025 Tools for Thought Workshop**  
Lev Tankelevitch, Elena L. Glassman, Jessica He, Aniket Kittur, [Mina Lee](#), Srishti Palani, Advait Sarkar, Gonzalo Ramos, Yvonne Rogers, Hari Subramonyam  
*Preprint*

**Penalizing Transparency? How AI Disclosure and Author Demographics Shape Human and AI Judgments About Writing**  
Inyoung Cheong, Alicia Guo, [Mina Lee](#), Zhehui Liao, Kowe Kadoma, Dongyoung Go, Joseph Chee Chang, Peter Henderson, Mor Naaman, Amy X. Zhang  
*Symposium on Human-Computer Interaction for Work (CHIWORK) Workshop on Navigating Generative AI Disclosure, Ownership, and Accountability in Co-Creative Domains*

### **What Shapes Writers' Decisions to Disclose AI Use?**

Jingchao Fang, Mina Lee

*Symposium on Human-Computer Interaction for Work (CHIWORK) Workshop on Navigating Generative AI Disclosure, Ownership, and Accountability in Co-Creative Domains*

### **Design Opportunities for Explainable AI Paraphrasing Tools: A User Study with Non-native English Speakers**

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

*Designing Interactive Systems Conference (DIS)*

### **Could AI Make Legalese Comprehensible to the Public?**

Mina Lee, Jake M. Hofman, David M. Rothschild, Daniel G. Goldstein

*Preprint*

### **How Problematic Writer-AI Interactions (Rather than Problematic AI) Hinder Writers' Idea Generation**

Khonzoda Umarova, Talia Wise, Zhuoer Lyu, Mina Lee, Qian Yang

*Preprint*

### **Audience Impressions of Narrative Structures and Personal Language Style in Science Communication on Social Media**

Grace Li, Yuanyang Teng, Juna Kawai Yue, Unaishah Ahmed, Anatta S Tantiwongse, Jessica Y Liang, Dorothy Zhang, Kynnedy Simone Smith, Tao Long, Mina Lee, Lydia B Chilton

*Preprint*

### **Effects of LLM Use and Note-Taking On Reading Comprehension and Memory: A Randomised Experiment in Secondary Schools**

Pia Kreijkes, Viktor Kewenig, Martina Kuvalja, Mina Lee, Sylvia Vitello, Jake M. Hofman, Abigail Sellen, Sean Rintel, Daniel G. Goldstein, David M. Rothschild, Lev Tankelevitch, Tim Oates

*Preprint*

2024

### **Building Machines that Learn and Think with People**

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

*Natural Human Behavior*

### **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 Wamborganss, 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)*

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, 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, Sunbeam So, Hakjoo Oh  
*Generative Programming: Concepts and Experiences (GPCE)*  **Best Paper Award**

## BOOKS

2025 **AI Insiders – The AI Future Report by Global Leaders**  
Contributed Part 4-3: “Writing with AI”

2025 **THE AI Asks, the Future Answers**  
Contributed Chapter 13: “Writing with AI”

2017 **How to Apply to Graduate Schools in the US**  
Freely available on [my website](#)

## SELECTED HONORS AND AWARDS

2025 **Young Faculty Award**, Korean Computer Scientists and Engineers Association in America (KOCSEA)  
2022 **Innovators Under 35 Korea**, MIT Technology Review  
2017 **Honorable Mention Award**, Conference on Human Factors in Computing Systems (CHI)  
2017 **School of Engineering Graduate Fellowship**, Stanford University  
2016 **Doctoral Study Abroad Scholarship**, Korea Foundation for Advanced Studies  
2015 **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

2025 **Natural Language Processing (CS257)**, University of Chicago  
*Undergraduate and graduate level course*

2024 **Introduction to Computer Science I (CS141)**, University of Chicago  
*Undergraduate level course*

### 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.

## 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

2025 **A Roundtable on AI and the Core**  
University of Chicago Core Conversations (2025.02)

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

### Research talks

2025 **Writing with AI: Capturing Its Influence, Designing Its Future**  
Northwestern University (Technology and Social Behavior) (2025.05)  
Microsoft (Masterclass) (2025.04)  
University of Illinois Urbana-Champaign (Human-Computer Interaction) (2025.04)  
University of Chicago (Psychology) (2025.04)

Northwestern University (Linguistics) (2025.03)

2024

**Writing with AI**

University of Michigan (Data Science and Computational Social Science) (2024.04)  
Massachusetts Institute of Technology (Initiative on Digital Economy) (2024.04)  
Toyota Technological Institute at Chicago (2024.12)  
Mila (2024.09)

2024

**A Design Space for Intelligent and Interactive Writing Assistants**

Microsoft Research (2024.03)  
Columbia University (Computational Design Lab) (2024.03)  
Cornell Tech (Social Technologies Research Group) (2023.11)

2023

**Writing with AI**

Columbia University (2023.11)  
Microsoft Workshop on AI, Cognition, and the Economy (AICE) (2023.10)

2023

**Designing and Evaluating Language Models for Human Interaction**

Sungkyunkwan University (2023.5)  
Stanford 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 (Artificial Intelligence) (2022.9)  
Grammarly, [AI-NLP Club](#) (2022.8)  
Korea Advanced Institute of Science and Technology (Electrical Engineering) (2022.2)

2021

**Writing with AI**

University of Minnesota–Twin Cities (2021.10)

2020

**Learning Autocomplete Systems via Unsupervised, Weakly Supervised, Supervised Learning**

Square (2020.7)

**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)

## Mentoring sessions

### 2025 Research Overview

University of Chicago, DSI Summer Lab and Data Science for Social Impact (2025.7)

University of Chicago, Cognitive Science, Mindscapes (2025.4)

### 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

### Current students

#### 2024- Jingchao Fang (Postdoc)

Research interests: AI as Cognitive Scaffold, HCI for Learning

#### 2024- Grace Li (PhD Student)

Research interests: Writing with AI, AI in Education, Creativity Support Tools

#### 2024- Yichen Wang (PhD Student)

Research interests: Natural Language Generation, Interactive LLM, Safe Generative Model

#### 2024- Jiayin Zhi (PhD Student)

Research interests: AI for Augmenting Human Capabilities, Collective AI Evaluation

### Incoming students

#### 2025- Han Zhang (Postdoc)

Starting in the academic year 2025-2026

#### 2025- Erica Mi (PhD Student)

Starting in the academic year 2025-2026

### 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.

Admitted to the PhD program at Carnegie Mellon University

Project: AI writing tools' impact on non-native speakers ([paper](#) published at DIS).

2022 **Tianyi Zhang** (Ph.D. Student at Stanford University)  
 Co-supervised with Professor Tatsunori Hashimoto.  
 Project: Template-based generative models ([paper](#) published at ACL).

2020 **Alexander Iyabor** (Master's Student at Stanford University)  
 Co-supervised with Chris Donahue through Stanford CS Summer Undergraduate Research Program.  
 Project: 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.  
 Project: 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.

## PROFESSIONAL SERVICE

### Workshop

2025 **Co-founder** for [Tools for Thought: Research and Design for Understanding, Protecting, and Augmenting Human Cognition with Generative AI](#) (CHI)

2024 **Co-founder** for [Human Centered Evaluation and Auditing of Large Language Models](#) (CHI)

2023 **Organizing committee** for [Intelligent and Interactive Writing Assistants](#) (CHI)

2022 **Co-founder** 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

Others [Patterns](#) 2025

## MEDIA COVERAGE

2025 **AI as a Thought Partner**  
[THE AI](#) (2025.5)

**Rethinking AI as a Thought Partner: Perspectives on Writing, Programming, and More**  
[University of Chicago CS News](#) (2025.1)

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)