

# Hye Sun Yun

Khoury College of Computer Sciences,  
Northeastern University

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## RESEARCH INTERESTS

Human-AI Interaction, Responsible AI, Human-Computer Interaction, Natural Language Processing, & Healthcare

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## EDUCATION

<b>Northeastern University</b> <i>Ph.D. in Computer Science</i> <i>Thesis:</i> Advancing Health Information Access with LLMs <i>Committee:</i> Byron C. Wallace, Timothy Bickmore, Mai ElSherief, & Emma Pierson <i>Expected Graduation:</i> Spring 2026	2020–Present Boston, MA
<b>Northeastern University</b> <i>M.S. in Computer Science</i>	2024 Boston, MA
<b>Wellesley College</b> <i>B.A. in Computer Science and Africana Studies</i> Magna Cum Laude; Phi Beta Kappa	2013–2017 Wellesley, MA

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## TEACHING EXPERIENCE

### *Instructor of Record*

<b>Intermediate Programming with Data (DS2500)</b> – with Deahan Yu <i>Northeastern University</i> 1 out of 4 lecture sections, 240 students for course, 14 TAs	Fall 2025
<b>Special Topics: Research in Human-Centered NLP (CS4973/6983)</b> <i>Northeastern University</i> 1 lecture section, 10 students	Spring 2025

### *Teaching Assistant*

• Introduction to CS Research (CS3950) at Northeastern University	Fall 2024
• Quality Assurance to Quality Engineer Program at Wayfair	Fall 2019
• MVC Framework Course at Wayfair	2019–2020
• Tangible User Interfaces (CS320) at Wellesley College	Fall 2016
• Languages & Automata (CS235) at Wellesley College	Fall 2016
• Algorithms (CS231) at Wellesley College	Spring 2016
• Beginning Japanese (JPN101,102) at Wellesley College	2014–2015

## Workshops

**Introduction to GitHub (Khoury SHEROs of Color Hackathon)**

March 2025

*Instructor at Northeastern University*

## Guest Lectures

**“Virtual Agents for Health Behavior Change”**

Fall 2022

*Course: CS3950 Introduction to CS Research at Northeastern University*

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## PUBLICATIONS

### Peer-Reviewed Conference Papers

1. **Hye Sun Yun**, Karen Y.C. Zhang, Ramez Kouzy, Iain J. Marshall, Junyi Jessie Li, & Byron C. Wallace. [“Caught in the Web of Words: Do LLMs Fall for Spin in Medical Literature?”](#) In *Proceedings of Conference on Health, Inference, and Learning (CHIL)*, 2025.
2. **Hye Sun Yun** & Timothy Bickmore. [“Framing Health Information: The Impact of Search Methods and Source Types on User Trust and Satisfaction in the Age of LLMs.”](#) In *Proceedings of the Extended Abstracts of the CHI Conference*, 2025.
3. **Hye Sun Yun**, David Pogrebetskiy, Iain J. Marshall, & Byron C. Wallace. [“Automatically Extracting Numerical Results from Randomized Controlled Trials with Large Language Models.”](#) In *Proceedings of the Machine Learning for Healthcare (MLHC) Conference*, 2024.
4. Mina Fallah, Farnaz Nouraei, **Hye Sun Yun**, & Timothy Bickmore. [“Investigating User Perceptions of Collaborative Agenda Setting in Virtual Health Counseling Session.”](#) In *Proceedings of the ACM International Conference on Intelligent Virtual Agents (IVA)*, 2024.
5. **Hye Sun Yun**, Iain J. Marshall, Thomas A. Trikalinos, & Byron C. Wallace. [“Appraising the Potential Uses and Harms of LLMs for Medical Systematic Reviews.”](#) In *Main Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP)*, 2023.
6. Prasanth Murali, Ian Steenstra, **Hye Sun Yun**, Ameneh Shamekhi, & Timothy Bickmore. [“Improving Multiparty Interactions with a Robot Using Large Language Models.”](#) In *Proceedings of the Extended Abstracts of the CHI Conference*, 2023.
7. **Hye Sun Yun**, Matias Volonte, & Timothy Bickmore. [“Motivating health behavior change with a storytelling virtual agent.”](#) In *Proceedings of the ACM International Conference on Intelligent Virtual Agents (IVA)*, 2022.

### Journal Articles

1. **Hye Sun Yun** & Timothy Bickmore. [“Online Health Information–Seeking in the Era of Large Language Models: Cross-Sectional Web-Based Survey Study.”](#) *Journal of Medical Internet Research (JMIR)*, Volume(27), 2025.
2. Iain J. Marshall, Thomas A. Trikalinos, Frank Soboczenski, **Hye Sun Yun**, Gregory Kell, Rachel Marshall, & Byron C. Wallace. [“In a pilot study, automated real-time systematic](#)

review updates were feasible, accurate, and work-saving.” *Journal of Clinical Epidemiology*, Volume(153), 2023.

**Workshop Papers**

1. **Hye Sun Yun**, Shuo Zhou, Everlyne Kimani, Stefan Olafsson, Teresa K. O’Leary, Dhaval Parmar, Jessica A. Hoffman, Stephen S. Intille, Michael K. Paasche-Orlow, & Timothy Bickmore. “[Techno-spiritual Engagement: Mechanisms for Improving Uptake of mHealth Apps Designed for Church Members.](#)” In *HEALTHI at Conference on Intelligent User Interfaces (IUI)*, 2022.

**Media Articles**

1. Teresa K. O’Leary, Elizabeth Stowell, Darley Sackitey, **Hye Sun Yun**, David Wright, Michael K. Paasche-Orlow, Timothy Bickmore, & Andrea G. Parker. “[Church after Sunday: supporting everyday well-being through techno-spiritual health interventions.](#)” In *ACM Interactions*, 2022.

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**PROFESSIONAL EXPERIENCE**

**Truveta** Summer 2024  
*AI/ML Research Intern* Remote (Seattle, WA)

Mentors: Saman Zarandioon, Mehraveh Salehi, Sadra Naddaf

- Conducted research in the field of LLMs and clinical notes investigating quality and diversity of training data for clinical concept extraction
- Explored methods to optimize a generalized clinical concept extraction LLM

**Wayfair** 2017–2020  
*Full-Stack Software Engineer/Manager* Boston, MA

- Developed and implemented features for a supplier-facing web tool, enabling efficient bulk addition of new products to the catalog
- Successfully spearheaded two major, multi-phase refactoring initiatives: frontend migration from Tungsten to React and Redux and completely rewriting the team’s Excel sheet import service
- Provided guidance and mentorship during rapid team growth, facilitating the onboarding of 10+ new hires
- Led team-wide adoption of pair programming to foster collaboration and knowledge sharing and established a program to train new code reviewers
- Managed and led a team of three software engineers, cultivating a collaborative and productive work environment, and ensuring successful project delivery

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**RESEARCH MENTORSHIP**

**Karen Y.C. Zhang**, B.S. in Computer Science at *Northeastern University* Spring–Summer 2025

<b>Patrick Wilson</b> , Master's in Public Health at <i>King's College London</i>	Spring–Fall 2024
<b>David Pogrebitskiy</b> , B.S. in Data Science at <i>Northeastern University</i>	Spring 2024
<b>Nikita Salkar</b> , M.S. in Computer Science at <i>Northeastern University</i>	Spring 2022

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## HONORS & AWARDS

<b>Selected as a mentee for CSST Summer Institute 2025</b> Consortium for the Science of Sociotechnical Systems, <i>Syracuse University</i>	2025
<b>Selected as a participant for CRA-WP Grad Cohort for Women</b> Computing Research Association–Widening Participation, <i>San Francisco, CA</i>	2023
<b>Best Rapid-Fire Presentation Award</b> RISM Health Symposium, <i>San Francisco, CA</i>	2021

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## SERVICE & OUTREACH

### *Northeastern University Institutional Service*

<b>PhD Open House</b> <i>Student Panelist &amp; Prospective Student Buddy</i>	2021 & 2024
<b>Pathway to PhD Workshop</b> <i>PhD Student Panelist</i>	Summer 2022
<b>Wellesley College Research Students' Visit</b> <i>PhD Student Panelist</i>	Summer 2022
<b>PhD Hiring Committee</b> <i>Faculty Application Reviewer</i>	2022
<b>PhD CS Admissions Committee</b> <i>PhD Student Application Reviewer</i>	2021

### *Community Engagement*

<b>Code to PhD</b> <i>PhD Application Support Program Mentor</i>	Fall 2025–Present
<b>Khoury SHEROs of Color</b> <i>PhD Student Panelist &amp; Hackathon Mentor</i>	Spring 2025
<b>Queer in AI</b> <i>Graduate School Application Review Program Mentor</i>	Fall 2023
<b>Wayfair's Women+ in Software</b> <i>Co-founder &amp; Leader</i>	2019–2020

## Peer Reviewer

### Conferences

CHI 2023 & 2025  
Machine Learning for Healthcare (MLHC) 2025  
Conference on Language Modeling (COLM) 2025  
IEEE Virtual Reality 2025  
Intelligent Virtual Agents (IVA) 2023–2025  
Autonomous Agents and Multiagent Systems (AAMAS) 2023  
IEEE International Symposium on Mixed and Augmented Reality (ISMAR) 2023

### Journals

International Journal of Human-Computer Studies 2025  
Journal of Medical Internet Research (JMIR) 2025  
Cochrane Evidence Synthesis and Methods 2025  
Research Synthesis Methods 2024–2025

### Workshops

ACL Workshop on Human-Centered Large Language Modeling 2024  
NeurIPS Workshop on Robustness in Sequence Modeling 2022  
ACM Web Conference Workshop on UserNLP 2022

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## TALKS

1. [“Beyond Hallucinations: Unveiling Hidden Dangers of LLMs in Health Information Access”](#) (June 2025). Invited talk. Wellesley College.
2. [“Beyond Hallucinations: Unveiling Hidden Dangers of LLMs in Health Information Access”](#) (April 2025). Invited talk at Department Seminar. Clemson University.
3. [“Charting My CS Career Path: From Wellesley to Industry and PhD”](#) (Nov. 2024). Invited talk. Wellesley College Hackathon.
3. “Automatically Extracting Numerical Results from RCTs with LLMs” (Oct. 2024). Invited talk. [Codamatrix](#) Reading Group.
4. “Using LLMs to Maintain User Engagement in Repeated Virtual Agent Interviews” (Sept. 2024). Conference talk. IVA 2024.
5. “Techno-spiritual Engagement: Mechanisms for Improving Uptake of Church mHealth App” (March 2022). Workshop talk. IUI HEALTHI Workshop 2022.
6. “Longitudinal Analysis of African-American Vaccine Attitudes on Social Media” (Dec. 2021). Rapid Research Talk with Silvio Amir. PRISM Health Symposium. **[Best Rapid-Fire Presentation Award]**

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**PRESS COVERAGE**

- 1. [“Dr. Google Starts Sharing Regular Folks’ Advice As Chatbots Loom”](#) by Michael L. Millenson. *Forbes*, May 2025
- 2. [“As AI expands into medicine, Northeastern study finds AI models influenced by medical bias”](#) by Emily Spatz. *Khoury News*, August 2025.

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**PROFESSIONAL DEVELOPMENT**

<b>Graduate Postsecondary Teaching Certificate Program</b>	2024–Present
<b>NRMN’s Research Mentor Training</b>	Summer 2024
National Research Mentoring Network, <i>Northeastern University</i>	
<b>ACL Year-Round Mentorship</b>	2022
Association for Computational Linguistics, <i>Remote</i>	

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**SKILLS**

**Tools/Platforms:** pyTorch, Huggingface, scikit-learn, statsmodels, Pandas, Azure, Google Cloud Platform (GCP), Docker, Weights & Biases, Prolific, Node.js, REST API, Flask, .NET Core

**Front-end:** React, Redux, Vue.js, HTML5, CSS, SASS, Jekyll

**Databases:** MySQL, SQLite, PostgreSQL, MS SQL Server

**Programming Languages:** Python, Java, Javascript, C#, SQL, R, ~~TeX~~TeX, Shell, PHP, C

**Human Languages:** Korean and English (bilingual), Japanese (beginner), Swahili (novice)

*Last updated: September 25, 2025*