# Hye Sun Yun

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#### **RESEARCH INTERESTS**

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

#### **EDUCATION**

Northeastern University

Ph.D. in Computer Science

Boston, MA

Advisors: Byron C. Wallace and Timothy Bickmore

Expected Graduation: Spring 2026

Northeastern University

M.S. in Computer Science

Boston, MA

Wellesley College

2013–2017

B.A. in Computer Science and Africana Studies

Wellesley, MA

B.A. in Computer Science and Africana Studies Magna Cum Laude; Phi Beta Kappa

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## **TEACHING EXPERIENCE**

## Instructor of Record

Intermediate Programming with Data (DS2500) – with Deahan Yu Fall 2025

*Northeastern University* 

1 out of 4 lecture sections, 200+ students for course, 15 TAs

Special Topics: Research in Human-Centered NLP (CS4983/6983) Spring 2025

Northeastern University

1 lecture section, 10 students

## Teaching Assistant

• Introduction to CS Research (CS3950) at Northeastern University	Fall 2024
<ul> <li>Quality Assurance to Quality Engineer Program at Wayfair</li> </ul>	Fall 2019
MVC Framework Course at Wayfair	2019–2020
<ul> <li>Tangible User Interfaces (CS320) at Wellesley College</li> </ul>	Fall 2016
<ul> <li>Languages &amp; Automata (CS235) at Wellesley College</li> </ul>	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

#### **PUBLICATIONS**

## Peer-Reviewed Conference Papers

- 1. **Hye Sun Yun**, Karen Y.C. Zhang, Ramez Kouzy, Iain J. Marshall, Junyi Jessy 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 Pogrebitskiy, 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.

#### 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

#### **RESEARCH MENTORSHIP**

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

Patrick Wilson, Master's in Public Health at King's College London	Spring–Fall 2024
David Pogrebitskiy, B.S. in Data Science at Northeastern University	Spring 2024
Nikita Salkar, M.S. in Computer Science at Northeastern University	Spring 2022
SERVICE & OUTREACH	
Northeastern University Institutional Service	
PhD Open House Student Panelist & Prospective Student Buddy	2021 & 2024
Pathway to PhD Workshop PhD Student Panelist	Summer 2022
Wellesley College Research Students' Visit PhD Student Panelist	Summer 2022
PhD Hiring Committee Faculty Application Reviewer	2022
PhD CS Admissions Committee PhD Student Application Reviewer	2021
Community Engagement	
Code to PhD PhD Application Support Program Mentor	Fall 2025-Present
Khoury SHEROs of Color PhD Student Panelist & Hackathon Mentor	Spring 2025
Queer in AI Graduate School Application Review Program Mentor	Fall 2023
Wayfair's Women+ in Software Co-founder & Leader	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

#### **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. Codametrix 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]

#### **PRESS COVERAGE**

1. "Dr. Google Starts Sharing Regular Folks' Advice As Chatbots Loom" by Michael L. Millenson. *Forbes*, May 2025

#### PROFESSIONAL DEVELOPMENT

## **Graduate Postsecondary Teaching Certificate Program**

2024–Present

Northeastern University, Boston, MA

## **CSST Summer Research Institute**

Summer 2025

Consortium for the Science of Sociotechnical Systems, Syracuse University

## NRMN's Research Mentor Training

Summer 2024

National Research Mentoring Network, Northeastern University

## **CRA-WP Grad Cohort for Women**

Spring 2023

Computing Research Association-Widening Participation, San Francisco, CA

## **ACL Year-Round Mentorship**

2022

Association for Computational Linguistics, Remote

## **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, MTX, Shell, PHP, C

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

Last updated: August 19, 2025