Hye Sun Yun

Curriculum Vitae
(last updated October 24, 2022)

PhD Student at Northeastern University
Khoury College of Computer Sciences
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EDUCATION

PhD in Computer Science   **2020-Present**
Northeastern University, Boston, MA
Advised by Timothy Bickmore and Byron Wallace

B.A. in Computer Science and Africana Studies, *magna cum laude*   **2013-2017**
Wellesley College, Wellesley, MA

RESEARCH EXPERIENCE

Research Assistant   **2020-Present**
Northeastern University, Boston, MA
- Conducted research in the fields of HCI and NLP co-advised by Timothy Bickmore and Byron Wallace
- In-progress work on HCI research to promote healthy behaviors for historically Black church members using an mHealth application with a conversational virtual agent.
- Worked on research using Bible storytelling to increase motivation towards healthy behavior changes for religious users.
- In-progress work on enhancing patient-reported outcomes for individual use through embodied conversational agents.
- In-progress work on NLP summarization research in the domain of biomedical texts.

REU Undergraduate Researcher   **2016**
University of Houston - Computational Biomedicine Lab, Houston, TX
- Completed an NSF-funded 10 week research program at the University of Houston under the supervision of Professor Ioannis A. Kakadiaris.
- Co-authored a literature review on anti-spoofing techniques for face recognition in computer vision systems.
- Compared how spoofing affects the accuracy of different face recognition systems.

PROFESSIONAL EXPERIENCE

Software Engineer/Engineering Manager   **2017-2020**
Wayfair, Boston, MA

- Contributed to building new features for the supplier-facing web tool for adding new products to the catalog in bulk.
- Led 2 large, multi-phase refactoring projects -- a conversion of the frontend from Tungsten to React and Redux and the rewriting of my team's Excel sheet import service.
- As the most senior engineer on the team, I have guided and mentored my team through the addition of 10+ new hires.
- Led larger team effort to incorporate pair programming as part of development work and led a program to train more code reviewers on the team.
- Gave department and team-wide talks on creating reusable Redux components and Jest testing.
- Leading and managing a team of 3 engineers.

TEACHING EXPERIENCE

Teaching Assistant for MVC Class   **2019-2020**

Wayfair, Boston, MA

- Assisted students during the hands-on activities during Wayfair's onboarding MVC framework class, once every 3 months.
- Answered questions online and in-person about MVC framework at Wayfair.

Quality Assurance to Quality Engineer Program Instructor   **2019**

Wayfair, Boston, MA

- Led 4 department-wide sessions on SQL and Introduction to Programming in PHP.

Wayfair Labs Mentor   **2019**

Wayfair, Boston, MA

- Co-mentored 30 entry-level engineers on their first month's full stack project.
- Provided constant technical feedback through code reviews and conversations during weekly drop-in hours.

Peer Tutor and Grader   **2014-2016**

Pforzheimer Learning and Teaching Center -- Wellesley College, Wellesley, MA

- Spring 2016 | **CS 231 Algorithms** | Held weekly group tutoring sessions and graded homework. Contributed to weekly calibration meetings and teaching pedagogy discussions with the professor and fellow tutors/graders.
- Fall 2016 | **CS 320 Tangible User Interface** | Held weekly drop-in hours.
- Fall 2016 | **CS 235 Languages & Automata** | Held 1-1 tutoring and review sessions for CS235.
- Fall 2014 & Spring 2015 | **JPN 101 & 102 Beginning Japanese** | Held weekly drop-in sessions to help students with their oral exercises and written homework.

PUBLICATIONS

Iain J. Marshall, Thomas A. Trikalinos, Frank Soboczenski, **Hye Sun Yun**, Gregory Kell, Rachel Marshall, Byron C. Wallace. 2022. **In a pilot study, automated real-time systematic review updates were feasible, accurate, and work-saving**. Journal of Clinical Epidemiology. https://doi.org/10.1016/j.jclinepi.2022.08.013

Hye Sun Yun, Matias Volonte, and Timothy Bickmore. 2022. **Motivating health behavior change with a storytelling virtual agent**. In Proceedings of the 22nd ACM International Conference on Intelligent Virtual Agents (IVA '22). Association for Computing Machinery, New York, NY, USA, Article 31, 1–3. https://doi.org/10.1145/3514197.3549684

Teresa K. O'Leary, Elizabeth Stowell, Darley Sackitey, **Hye Sun Yun**, David Wright, Michael Paasche-Orlow, Timothy Bickmore, and Andrea G. Parker. June 2022. **Church after Sunday: supporting everyday well-being through techno-spiritual health interventions**. In ACM Interactions *29 (4)*. 4 pages. https://doi.org/10.1145/3542838

Hye Sun Yun, Shuo Zhou, Everlyne Kimani, Stefan Olafsson, Teresa K. O'Leary, Dhaval Parmar, Jessica Hoffman, Stephen Intille, Michael Paasche-Orlow, and Timothy Bickmore. 2022. **Techno-spiritual Engagement: Mechanisms for Improving Uptake of mHealth Apps Designed for Church Members**. In Joint Proceedings of the ACM IUI 2022 Workshops. Helsinki, Finland, 9 pages. http://ceur-ws.org/Vol-3124/paper13.pdf

PRESENTATIONS

ACM IUI HEALTHI Workshop   **2022**

"Techno-spiritual Engagement: Mechanisms for Improving Uptake of mHealth Apps Designed for Church Members"

PRISM Health Symposium   **2021**

"Longitudinal Analysis of the Attitudes and Conversations Surrounding Vaccines by African Americans on Social Media"

GRANTS AWARDED

Global Engagement Internship/Grant, Wellesley College   **2015**

Wellesley College's Center for Work and Service grant for global summer internships ($5,000)
- Interned at Asian Rural Institute (Japan) for 10 weeks with the grant.

ACADEMIC MEMBERSHIP

Phi Beta Kappa Society (ΦΒΚ)

AWARDS

1st Wayfair Supplier DIY Innovation Day Winner - *Dolly Project Cloner*   **2019**
Wayfair Challenge Day Runner-Up - *Wayfair en Español*   **2018**

ACADEMIC SERVICE/VOLUNTEER

CHI Health Subcommittee Paper Reviewer   **2022**
CHI 2023

Workshop on Robustness in Sequence Modeling Paper Reviewer   **2022**
NeurIPS 2022

Khoury College - Pathway to PhD Workshop Panelist   **August 23, 2022**
Northeastern University, Boston, MA

PhD Student Application Reviewer   **2021**
Northeastern University, Boston, MA

Women+ in Software Lead   **2019-2020**
Wayfair, Boston, MA
- Helped organize the formation of the employee resource group and worked on organizing the kickoff event.
- Represented the group when attending company's ERG-related meetings.

PROGRAM COMMITTEE

UserNLP: User-centered Natural Language Processing Workshop   **2022**

ACTIVITIES

ACL Year-Round Mentorship   **2022**
Class of 2022 mentee