

# Catherine Yeh

CS PHD CANDIDATE · HARVARD UNIVERSITY

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## Education

### Harvard University

PH.D. IN COMPUTER SCIENCE

Advisors: Martin Wattenberg, Fernanda Viégas

Research Interests: Visualization, Interpretability, Human-AI Interaction

Boston, MA

2022 - present

### Williams College

B.A. IN COMPUTER SCIENCE & COGNITIVE SCIENCE

Advisor: Iris Howley – Thesis: [Toward an Empirical Framework for Post-hoc Explainable AI](#)

Graduated Summa Cum Laude (top 2% of class) with Highest Honors in Computer Science

Williamstown, MA

2018 - 2022

## Research Experience

### Industry

#### Adobe Research – STORIE Lab

INCOMING RESEARCH SCIENTIST INTERN

Mentors: Bryan Wang, Anh Truong

Seattle, WA

Summer 2025

#### Apple Research – Human-Centered Machine Intelligence Group

RESEARCH INTERN

Mentors: Fred Hohman, Donghao Ren, Yannick Assogba

Developed a visual, human-in-the-loop data augmentation tool for increasing data diversity in text datasets.

Seattle, WA

Summer 2024

#### Microsoft Research – Human Understanding & Empathy Group

RESEARCH INTERN

Mentors: Gonzalo Ramos, Rachel Ng

Designed a personalized environment to preserve agency and ownership while writing with large language models.

Redmond, WA

Summer 2023

#### Adobe Research – Media Intelligence Lab

RESEARCH SCIENTIST INTERN

Mentors: Franck DERNONCOURT, Nedim Lipka

Developed prototypes showcasing vision for the next-gen document reader.

San Jose, CA

Summer 2022

#### Microsoft Research – Productivity & Intelligence Group

RESEARCH INTERN

Mentors: Jenna Butler, Christian Bird

Built self-reflection chatbot and personalized dashboards for studying hybrid workforce productivity and well-being.

Redmond, WA

Summer 2021

### Academic

#### Harvard University – Insight & Interaction Lab

GRADUATE RESEARCH ASSISTANT

Advisors: Martin Wattenberg, Fernanda Viégas

Designing visualization-driven interfaces and techniques to support model interpretability and enable more productive, safe, and creative human-AI interactions.

Boston, MA

2022 - present

#### Williams College – Computation<sup>2</sup> Lab

UNDERGRADUATE RESEARCH ASSISTANT

Advisor: Molly Feldman

Studied and developed guidelines for replicability in human-computer interaction research.

Williamstown, MA

2021-2022

## Williams College – Human-AI Interaction Lab

UNDERGRADUATE RESEARCH ASSISTANT

Advisor: Iris Howley

Studied knowledge tracing algorithms and developed a novel, evidence-based framework for explainable AI.

Williamstown, MA

2019-2022

## Williams College – Concepts & Categories Lab

UNDERGRADUATE RESEARCH ASSISTANT

Advisor: Safa Zaki

Designed eye-tracking experiments to study cognitive learning strategies in categorization tasks.

Williamstown, MA

2018-2019

## Publications

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### Conference

#### C3 Exploring Empty Spaces: Human-in-the-Loop Data Augmentation

Catherine Yeh, Donghao Ren, Yannick Assogba, Dominik Moritz, Fred Hohman

*ACM Conference on Human Factors in Computing Systems (CHI)*, 2025.

[Paper](#) • 🏆 Honorable Mention - top 5% of papers

#### C2 AttentionViz: A Global View of Transformer Attention

Catherine Yeh, Yida Chen, Aoyu Wu, Cynthia Chen, Fernanda Viégas, Martin Wattenberg

*IEEE Transactions on Visualization & Computer Graphics (TVCG)*, 2023.

[Paper](#)

#### C1 Designing for Student Understanding of Learning Analytics Algorithms

Catherine Yeh, Noah Cowit, Iris Howley

*International Conference on Artificial Intelligence in Education (AIED)*, 2023.

[Paper](#)

### Preprint

#### P2 Designing a Dashboard for Transparency and Control of Conversational AI

Yida Chen, Aoyu Wu, Trevor DePodesta, Catherine Yeh, Kenneth Li, Nicholas Castillo Marin, Oam Patel, Jan Riecke, Shivam Raval, Olivia Seow, Martin Wattenberg, Fernanda Viégas

[Paper](#)

#### P1 GhostWriter: Augmenting Collaborative Human-AI Writing Experiences Through Personalization and Agency

Catherine Yeh, Gonzalo Ramos, Rachel Ng, Andy Huntington, Richard Banks

[Paper](#)

### Workshop

#### W2 Envisioning the Next-Gen Document Reader

Catherine Yeh, Franck Dernoncourt, Nedim Lipka

*AAAI Workshop on Scientific Document Understanding (SDU)*, 2023.

[Paper](#)

#### W1 Tests, Memory, and Artificial Intelligence: How Can We Know What People Know?

Noah Cowit, Catherine Yeh, Iris Howley

*IEEE VIS Workshop on Visualization for AI Explainability (VISxAI)*, 2019.

### Other

#### O1 Walk a Mile in Their Shoes: The Covid Pandemic Through the Lens of Four Tech Workers

Jenna Butler, Catherine Yeh

*Communications of the ACM & ACM Queue*, 2022.

[Paper](#) • [Paper 2](#)

## Honors & Awards

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- 2025 Best Paper Honorable Mention, ACM CHI
- 2024 Graduate Research Fellowship Recipient, NSF  
Graduate Fellowship Recipient, Kempner Institute
- 2022 Inductee, Sigma Xi International Scientific Research Honor Society  
Outstanding Undergraduate Award Runner Up, CRA
- 2021 Collegiate Award Finalist, NCWIT  
Women-in-Technology Scholarship Finalist, Adobe Research  
Junior Year Inductee (top 5% of class), Phi Beta Kappa National Honor Society  
ACM Student Research Competition Finalist, Grace Hopper Conference  
Ward Prize Finalist, Williams College
- 2019 Computer Science Class of 1960s Scholar (2019 - 2022), Williams College  
3rd Place Winner, National USCLAP Statistics Competition  
Summer Science Research Fellowship Recipient, Williams College  
Scholarship Recipient, Grace Hopper Conference
- 2018 Dean's List (2018 - 2022), Williams College

## Other Industry Experience

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### Oracle Cloud Infrastructure (OCI)

SOFTWARE ENGINEER INTERN

Built dashboard and visual database for regional compliance programs.

Seattle, WA

Summer 2020

### Sunshine

SOFTWARE ENGINEER INTERN

Created dashboard for AI-driven consumer app.

Palo Alto, CA

Winter 2020

## Teaching Experience

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CS279R: Research Topics in Human-Computer Interaction, Harvard University

Fall 2023

CSCI 334: Principles of Programming Languages, Williams College

Spring 2022, Fall 2021, Spring 2021

CSCI 315: Computational Biology, Williams College

Fall 2021

CSCI 256: Algorithm Design & Analysis, Williams College

Spring 2020

CSCI 136: Data Structures & Advanced Programming, Williams College

Fall 2020, Fall 2019, Spring 2019

## Mentoring

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### Research

Helen He '26, Harvard University

Spring 2025 – LLM-Enhanced Storyline Visualizations

Vicki Xu '23, Harvard University

Fall 2023 – Logit Lens on Vision Transformer

Cynthia Chen '24, Harvard University

Spring 2023 – Visualizations for Transformer Interpretability

### Other

SEAS Research Program Mentor, Harvard University

2024 - present

Women in STEM Mentor, Harvard University

2022 - present

Underrepresented Identities in CS Mentor, Williams College

2020 - 2022

## Service

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### Program Committee

IEEE VIS Workshop on Visualization for AI Explainability (VISxAI) – 2024

Reviewer \* *indicates outstanding review recognition*

Journal of Visualization and Interaction (JoVI) – 2025

ACM Conference on Human Factors in Computing Systems (CHI) – 2024\*

ACM Transactions on Intelligent Systems and Technology (TIST) – 2024

ACM Conference on Designing Interactive Systems (DIS) – 2024

### Volunteer

IEEE VIS Student Volunteer – 2023

## Misc

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[Art Portfolio](#)