Catherine Yeh

CS PHD CANDIDATE · HARVARD UNIVERSITY

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Education

Harvard University   *Boston, MA*
PH.D. IN COMPUTER SCIENCE   *2022 - present*
Advisors: Martin Wattenberg, Fernanda Viégas
Research Interests: Visualization, Interpretability, Human-AI Interaction

Williams College   *Williamstown, MA*
B.A. IN COMPUTER SCIENCE & COGNITIVE SCIENCE   *2018 - 2022*
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

Research Experience

Industry

Adobe Research – STORIE Lab   *Seattle, WA*
INCOMING RESEARCH SCIENTIST INTERN   *Summer 2025*
Mentors: Bryan Wang, Anh Truong

Apple Research – Human-Centered Machine Intelligence Group   *Seattle, WA*
RESEARCH INTERN   *Summer 2024*
Mentors: Fred Hohman, Donghao Ren, Yannick Assogba
Developed a visual, human-in-the-loop data augmentation tool for increasing data diversity in text datasets.

Microsoft Research – Human Understanding & Empathy Group   *Redmond, WA*
RESEARCH INTERN   *Summer 2023*
Mentors: Gonzalo Ramos, Rachel Ng
Designed a personalized environment to preserve agency and ownership while writing with large language models.

Adobe Research – Media Intelligence Lab   *San Jose, CA*
RESEARCH SCIENTIST INTERN   *Summer 2022*
Mentors: Franck Dernoncourt, Nedim Lipka
Developed prototypes showcasing vision for the next-gen document reader.

Microsoft Research – Productivity & Intelligence Group   *Redmond, WA*
RESEARCH INTERN   *Summer 2021*
Mentors: Jenna Butler, Christian Bird
Built self-reflection chatbot and personalized dashboards for studying hybrid workforce productivity and well-being.

Academic

Harvard University – Insight & Interaction Lab   *Boston, MA*
GRADUATE RESEARCH ASSISTANT   *2022 - present*
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.

Williams College – Computation^2 Lab   *Williamstown, MA*
UNDERGRADUATE RESEARCH ASSISTANT   *2021-2022*
Advisor: Molly Feldman
Studied and developed guidelines for replicability in human-computer interaction research.

Williams College – Human-AI Interaction Lab *Williamstown, MA*

UNDERGRADUATE RESEARCH ASSISTANT *2019-2022*

Advisor: Iris Howley

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

Williams College – Concepts & Categories Lab *Williamstown, MA*

UNDERGRADUATE RESEARCH ASSISTANT *2018-2019*

Advisor: Safa Zaki

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

Publications

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

2025	**Best Paper Honorable Mention**, ACM CHI
	Graduate Collegiate Award Finalist, NCWIT
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	**Undergraduate 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

Oracle Cloud Infrastructure (OCI) *Seattle, WA*
SOFTWARE ENGINEER INTERN *Summer 2020*
Built dashboard and visual database for regional compliance programs.

Sunshine *Palo Alto, CA*
SOFTWARE ENGINEER INTERN *Winter 2020*
Created dashboard for AI-driven consumer app.

Teaching Experience

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

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

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

Art Portfolio