

Catherine Yeh

CS PHD CANDIDATE · HARVARD UNIVERSITY

✉ catherineyeh@g.harvard.edu | 🏠 catherinesyeh.github.io | 🔗 catherinesyeh | in catherinesyeh

Education

Harvard University

Boston, MA

PH.D. IN COMPUTER SCIENCE WITH MASTERS IN PASSING

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

Google DeepMind

Mountain View, CA

INCOMING STUDENT RESEARCHER

Summer 2026

Adobe Research – STORIE Lab

Seattle, WA

RESEARCH SCIENTIST INTERN

Summer 2025

Mentors: Bryan Wang, Anh Truong, Mira Dontcheva

Designed a video authoring tool to help creators craft compelling video stories by blending captured and generative media (C6).

Apple Research – Human-Centered Machine Intelligence Group

Seattle, WA

RESEARCH INTERN

Summer 2024

Mentors: Fred Hohman, Donghao Ren, Yannick Assogba, Dominik Moritz

Developed a visual, human-in-the-loop data augmentation tool for increasing data diversity in text datasets (C3).

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 (P1).

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 (W2).

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 (O1).

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 (C5, C4, C2, W3).

Williams College – Computation² 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 (C1, W1).

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

Conference * denotes equal contribution

C6 **Vidmento: Creating Video Stories Through Context-Aware Expansion With Generative Video**

Catherine Yeh, Anh Truong, Mira Dontcheva, Bryan Wang

ACM Conference on Human Factors in Computing Systems (CHI), 2026.

[Paper](#)

C5 **Story Ribbons: Reimagining Storyline Visualizations With Large Language Models**

Catherine Yeh, Tara Menon, Robin Singh Arya, Helen He, Moira Weigel, Fernanda Viégas, Martin Wattenberg

IEEE Visualization Conference (VIS), 2025.

[Paper](#) · 🏆 Best Paper Honorable Mention

C4 **Chronotome: Real-Time Topic Modeling for Streaming Embedding Spaces**

Matte Lim*, Catherine Yeh*, Martin Wattenberg, Fernanda Viégas, Panagiotis Michalatos

IEEE Visualization Conference (VIS), 2025.

[Paper](#) · 🏆 Best Paper Honorable Mention

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](#) · 🏆 Best Paper Honorable Mention

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

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

IEEE Visualization Conference (VIS), 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](#)

Workshop

W3 **What Kind of User Are You? Uncovering User Models in LLM Chatbots**

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

ICML Actionable Interpretability Workshop (AIW), 2025

[Paper](#)

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](#)

Preprint

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

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

[Paper](#)

Patents

Video Sequencing and Gap Detection for Authoring Videos Including Captured and Generated Content

Application Filed

[Generative Neural Network Model Style Guide Management](#), US Patent App. 18400715

August 2025

Invited Talks & Panels

Crash Course on Securing PhD Research Internships, Harvard University Computer Science Department

November 2025

Principles of Data Visualization, Carnegie Mellon University Language Technologies Institute

June 2025

Exploring Empty Spaces: Human-in-the-Loop Data Augmentation, Apple Research Machine Learning Summit

March 2025

Panel on Effective Research Practices for PhD Students, Harvard University Computer Science Department

February 2025

Honors & Awards

- 2025 **Best Paper Honorable Mention (x2), IEEE VIS**
Best Paper Honorable Mention, ACM CHI
Graduate Collegiate Award Finalist, NCWIT
10 Under 10 Outstanding Alumni Award Recipient, The Overlake School
- 2024 **Graduate Research Fellowship Recipient, NSF**
Graduate Fellowship Recipient, Kempner Institute
- 2022 **Inductee, Sigma Xi International Scientific Research Honor Society**
Outstanding Undergraduate Researcher 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)

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

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-Augmented 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

VISBuddies Mentor, IEEE VIS

2025 - present

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

Organizer

IEEE VIS Workshop on Visualization for AI Explainability (VISxAI) – 2026, 2025

IEEE VIS Workshop on GenAI, Agents, and the Future of VIS (VISxGenAI) – 2025

Program Committee

IEEE VIS Workshop on Visualization for Communication (VisComm) – 2025

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

Reviewer * indicates outstanding review recognition

Conference

IEEE Eurographics Conference on Visualization (EuroVis) – 2026

IEEE Pacific Visualization Conference (PacificVis) – 2026

IEEE Visualization Conference (VIS) – 2025

ACM Conference on Human Factors in Computing Systems (CHI) – 2025*, 2026*

ACM Conference on Designing Interactive Systems (DIS) – 2024

Journal

Journal of Visualization and Interaction (JoVI) – 2025

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

Volunteer

IEEE VIS Student Volunteer – 2023

Misc

[Art Portfolio](#)