Katelyn C. Morrison

CONTACT INFORMATION	Newell Simon Hall A408A Human-Computer Interaction Carnegie Mellon University Pittsburgh, PA 15213 USA	*Phone:* (610) 533-5828 *Website:* www.cs.cmu.edu/~kcmorris *E-mail:* kcmorris@cs.cmu.edu *GitHub:* https://github.com/katelyn98

RESEARCH
INTERESTS

I am interested in exploring topics related to **human-AI collaboration** or **human-centered explainable AI**. I am comfortable designing and running **user studies, surveys, and interviews**; building **low-fidelity prototypes in Figma** and **interactive tools using Svelte**; conducting **qualitative** and **quantitative** analyses (i.e., thematic analysis, hypothesis testing); analyzing large datasets using **Python** or **R**.

EDUCATION

Carnegie Mellon University, Pittsburgh, PA   08/2021 - present

     Ph.D. in Human-Computer Interaction

University of Pittsburgh, Pittsburgh, PA   08/2018 - 05/2021

     B.S., Computer Science & Certificate in Sustainability (GPA: 3.77/4.00) - *Summa Cum Laude*

Moravian College, Bethlehem, PA   08/2017 - 05/2018

     General Education Studies

RESEARCH
EXPERIENCE

Doctoral Research Assistant, **Carnegie Mellon University**   08/2021 - present
Collaborate on and lead research projects revolving around improving human-AI collaboration in high-stakes scenarios (i.e., analyzing building damage assessment from satellite imagery) and explainable AI. Advised by Adam Perer.

Ph.D. Research Intern, **Microsoft Research**   05/2022 - 08/2022
Used mixed-methods and self-assessment methodology to understand how workers interact with a task-based reminder system in the workplace. Created a prototype in Figma based on study findings and conducted think-aloud studies. Advised by Eric Horvitz and Shamsi Iqbal.

Undergraduate Research Intern, **Microsoft Research**   05/2021 - 08/2021
Conducted surveys on MTurk to understand how people attribute trust and quality to opinion vs non-opinion news articles. Created metrics to represent trust and quality of articles to analyze responses. Advised by David Rothschild.

Undergraduate Research Fellow, **University of Pittsburgh**   01/2021 - 05/2021
Conducted exploratory data analysis, interviewed a bike sharing program director, and evaluated how social, infrastructural, and spatial features impact the prediction of bike demand.

Undergraduate Research Assistant, **Carnegie Mellon University**   08/2020 - 05/2021
Created an Android application that collects and labels IMU sensor and video data when it detects that the user is in a vehicle. Collects ground truth label for the video from the user. Advised by Mayank Goel.

Data Science Intern, **IQT Labs**   06/2020 - 08/2020
Enabled "information epidemiology" by making an interactive Plotly Dash App to explore the life cycle of a claim or narrative about COVID-19 on Twitter using a spatial-temporal visualization. Advised by Nina Lopatina.

Undergraduate Research Assistant, **University of Pittsburgh** 08/2019 - 10/2020

    Worked on an interdisciplinary team to design an open source system on a Raspberry Pi that non-invasively calculates thoracic rotation range of motion using basic computer vision techniques. Advised by William Clark.

PUBLICATIONS **Katelyn Morrison**, Donghoon Shin, Kenneth Holstein, and Adam Perer. "Evaluating the Impact of Human Explanation Strategies on Human-AI Visual Decision-Making." In ACM SIGCHI Conference on Computer-Supported Cooperative Work Social Computing (CSCW) 2023.

Vivek Aswal*, Gore Kao*, Seo Young Kim*, and **Katelyn Morrison***. "Towards Generating Human-Centered Saliency Maps without Significantly Sacrificing Accuracy." In NeuroVision Workshop, CVPR 2022. *All authors contributed equally and are ordered alphabetically.*

Katelyn Morrison, Benjamin Gilby, Colton Lipchak, Adam Mattioli, and Adriana Kovashka. "Exploring Corruption Robustness: Inductive Biases in Vision Transformers and MLP-Mixers." In Workshop on Uncertainty & Robustness in Deep Learning, ICML 2021.

Katelyn Morrison. "Reducing Discrimination in Learning Algorithms for Social Good in Sociotechnical Systems." In Workshop on AI for Social Good, IJCAI-PRICAI 2020.

Katelyn Morrison, Daniel Yates, Maya Roman, and William W. Clark. "Using Object Tracking Techniques to Non-Invasively Measure Thoracic Rotation Range of Motion." In Adjunct Proceedings of the ACM International Conference on Multimodal Interaction (ICMI) 2020, Utrecht, the Netherlands.

PAPERS UNDER REVIEW **Katelyn Morrison**, Shamsi Iqbal, and Eric Horvitz. "Investigation of Experiences with an Email-Based Task Reminder System: Mixed-Methods Study and Directions." *Plan to submit* to CSCW 2023.

Katelyn Morrison, Mayank Jain, Jessica Hammer, and Adam Perer. "Eye into AI: Evaluating and Comparing Explainable AI Techniques through a Playful Game with a Purpose." *Under review* at CSCW 2023.

SERVICE **Reviewer**

ACM Conference on Human Factors in Computing Systems (CHI)	2022
ACM Interactive Surfaces and Spaces (ISS)	2021
ACM Conference On Computer-Supported Cooperative Work And Social Computing (CSCW)	2021

Organizing Committee

Computational Sustainability Doctoral Consortium	2020, 2022, 2023

Community Engagement

Graduate Student Association Representative	2021, 2022
Undergraduate Research Engagement Working Group	2021, 2022

HONORS AND AWARDS

School of Computing & Information Commencement Speaker	05/2021
CS Dept. Most Outstanding Undergraduate Student Award	05/2021
Emma W. Locke Award Nominee	04/2021
15th annual ACC Meeting of the Minds Presenter	04/2021
Chancellor's Undergraduate Research Fellowship	01-05/2021
School of Computing & Information Dean's List	Fall 2020, Spring 2021
Ivan Santa-Cruz Memorial Study Abroad Scholarship	02/2020

Pitt Study Abroad Office Scholarship   02/2020
Adobe Research Women in Technology Scholarship Finalist   11/2019
Stanford University Innovation Fellowship   10/2019-05/2020
United Nations Academic Impact Group Millennium Fellowship   08-12/2019

Skills   **Research Methods**
Think-aloud studies; Semi-structured interviews; self-assessment surveys; user studies; thematic analysis; Mechanical Turk; Prolific; hypothesis testing

Programming Languages
Python, R, HTML, JavaScript

Programming Libraries & Frameworks
PyTorch, Pandas, Plotly, Google Cloud Platform & Firebase, Svelte, D3, Jupyter Notebooks, Google Colab, Folium, OpenCV