KERI MALLARI Ph.D. (expected 2025)

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Human Computer Interaction (HCI) and *Applied Machine Learning (ML)* Researcher with a strong background in *designing experiments*, conducting *statistical analysis*, and developing *data-driven solutions*. Experienced in improving ML models, analyzing user interactions, and creating inclusive digital experiences.

SKILLS

Data: R (tidyverse, dplyr, ggplot2, etc), Python (sklearn, gensim, etc), SQL
Software: Vercel, Nextjs, React, Node.js, Express, JavaScript, HTML, CSS, Jekyll
Research: Survey, A/B Testing, Experiment Design, Statistical Modeling, Inferential Statistics

EXPERIENCE

Machine Learning and Software Engineer

Microsoft | *May 2024 - Aug 2024*

- Curated a new dataset, applied key feature extraction, and data augmentation techniques to supplement existing data.
- Fine-tuned a pretrained model on a classification task and performed cross validation to evaluate model performance.
- Collaborated with the internal team to present model performance and key areas for improvement such as feature thresholds and effects of data distribution

Twitch (Amazon Subsidiary) | *July 2021 - Jan 2022*

- Curated a dataset of live stream chat data using SQL to develop an analytics pipeline for live streamers.
- Applied text embeddings on chat data and applied clustering techniques to identify recurring topics or conversational trends

Microsoft | *June - Sep 2019*

- Implemented an intelligent document processing tool that specializes on low quality pictures of documents
- Leveraged Azure Cognitive Services to improve document processing and data retrieval accuracy

University of Washington

- Developing a conversational agent to support constructive feedback exchange using Python and GPT.
- Designed and conducted a user study to evaluate efficacy and performance of the conversational agent to improve constructive feedback exchange

Data Science and Research

Microsoft | *May - Aug 2022*

- Conducted thematic analysis on data from interviews and observations to identify key insights.
- Analyzed survey data, utilizing Python and R for data cleaning, analysis, and visualization.
- Performed non-parametric aligned rank transform analysis on survey results to evaluate prototype performance, focusing on user preference and perceived ease of effort and performance.

Microsoft | *June - Sep 2020*

- Designed and executed a study to assess user interactions with simulated algorithmic models.
- Analyzed qualitative data through thematic analysis to understand how user expertise influences AI-assistant effectiveness.
- Utilized R and Python for quantitative analysis to evaluate model performance and user responses.

PUBLICATIONS

- Tang, J., Inkpen, K., Junuzovic, S., **Mallari, K.**, Wilson, A., Rintel, S., Cupala, S., Carbary, T., Sellen, A., & Buxton, W (2023). Perspectives: Creating Inclusive and Equitable Hybrid Meeting Experiences. Computer Supported Cooperative Work (CSCW), 1-25.
- Inkpen, K., Chappidi, S., **Mallari, K**., Nushi, B., Ramesh, D., Michelucci, P., ... & Quinn, G. (2022). Advancing Human-AI Complementarity: The Impact of User Expertise and Algorithmic Tuning on Joint Decision Making. In Special Issue for ACM Transactions on Human-Computer Interaction.
- **Mallari, K**., Williams, S., & Hsieh, G. (2021, May). Understanding Analytics Needs of Video Game Streamers. In Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (pp. 1-12).
- **Mallari, K**., Inkpen, K., Johns, P., Tan, S., Ramesh, D., & Kamar, E. (2020, April). Do I Look Like a Criminal? Examining How Race Presentation Impacts Human Judgement of Recidivism. In Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (pp. 1-13).

TEACHING EXPERIENCE

Teaching Assistant, University of Washington INFO
Project Capstone (Undergraduate) — Winter ‘22 ‘23 ‘24, Spring ‘22 ‘23 ‘24

Teaching Assistant, University of Washington HCDE
Physical Prototyping (Graduate) — Winter 2021, Fall 2021
Designing for Behavior Change (Graduate) — Spring 2021
UX Prototyping (Undergraduate) — Fall ‘20, ‘22, ‘23

Teaching Assistant, CUNY Lehman College CS
Programming Methods I & II (Undergraduate) — 2016-2017

Teaching Assistant, CUNY Lehman College MATH
Foundations of Data Science (Undergraduate) — 2016-2017

EDUCATION

University of Washington, College of Engineering
Ph.D. Human Centered Design and Engineering — Expected 2025
M.S. Human Centered Design and Engineering — April 2024

CUNY Lehman College — September 2015 - June 2019
B.S. Computer Science
B.A. Mathematics