Usha Bhalla

usha_bhalla@g.harvard.edu, ushabhalla.github.io

EDUCATION

Harvard University 2022 – Present
Ph.D. in Computer Science GPA: 4.00
Advised by Prof. Hima Lakkaraju

Brown University 2018 – 2022
Sc.B. in Computer Science, with Honors GPA: 4.00
Advised by Prof. Chen Sun

PUBLICATIONS

U. Bhalla, S. Srinivas, A. Ghandeharioun, H. Lakkaraju. "Towards Unifying Interpretability and Control: Evaluation via Intervention" *Under review, PDF upon request*, 2024

U. Bhalla*, A. Oesterling*, S. Srinivas, F. P. Calmon, H. Lakkaraju. "Interpreting CLIP with Sparse Linear Concept Embeddings (SpLiCE)" *NeurIPS 2024*, 2024

A. Oesterling*, **U. Bhalla***, S. Venkatasubramanian, H. Lakkaraju. "Operationalizing the Blueprint for an AI Bill of Rights: Recommendations for Practitioners, Researchers, and Policy Makers" *Under review*, 2024

J. So*, **U. Bhalla***, S. Warchol*, H.B. Tedasse, H. Das, K. Gajos. "Patient & Provider Centered Trustworthy ML: An Interview Study on Birth Control Recommendation Systems" *Under review, PDF upon request*, 2024

U. Bhalla*, S. Srinivas*, H. Lakkaraju. "Discriminable Feature Attributions: A Bridge between Post Hoc Explainability and Inherent Interpretability" *NeurIPS*, 2023

C. Badrinath, **U. Bhalla**, A. Oesterling, S. Srinivas, H. Lakkaraju. "All Roads Lead to Rome? Exploring Representational Similarities Between Latent Spaces of Generative Image Models" *ICML 2024 Workshops GRaM, SPIGM, HiLD*, 2024

T. Yun, **U. Bhalla**, E. Pavlick, C. Sun. "Do Vision-Language Pretrained Models Learn Compositional Concepts?" *TMLR*, 2023

U. Bhalla*, N. Sehgal*, I. Puri*. "Reconsidering the Algorithmic Fairness of Race Adjustment in Pulmonary Function Equations" *AAAI AI For Social Good Workshop*, 2023

N. Semmineh*, **U. Bhalla***, L. Bell, A. Stokes, M. Lee, L. Hu, J.L. Boxerman, C. Quarles. "Analysis of Accuracy and Precision of Recommended Protocols for Dynamic Susceptibility Contrast MRI for Brain Metastases." *ISMRM 2020.*
* denotes equal contribution

INVITED & TALKS

INFORMS 2024 Annual Meeting Emerging Trends in Interpretable Machine Learning. *Interpreting CLIP with Sparse Linear Concept Embeddings (SpLiCE)*

FELLOWSHIPS & AWARDS

Kempner Institute Graduate Research Fellowship 2023
Full funding from second through sixth year of graduate studies

Magna Cum Laude, Brown 2022

Highest honors awarded by Brown University

CS Senior Award, Brown   2022
Cash prize awarded for "academic accomplishments as well as service to the department"

RESEARCH EXPERIENCE	**Microsoft Research** *Research Intern*	06/2021 – 09/2021
	NSF REU - Rosetta Commons *REU Fellow*	05/2020 – 09/2020
	Barrow Neurological Institute *Undergraduate Research Intern, Translation Bioimaging Lab*	06/2019 – 10/2019
TEACHING	**Graduate Teaching Fellow** *APCOMP 297R - Computational Science and Engineering Capstone*	Fall 2023
	Head Undergraduate Teaching Assistant *CS1470 - Deep Learning* *CS0030 - CS for Social Sciences*	Fall 2021 Fall 2020
	Undergraduate Teaching Assistant *CS0220 - Discrete Math and Probability*	Spring 2021
SERVICE & MENTORING	Reviewer for ICLR	2024
	Organizer, Program Chair for NeurIPS Workshop on Regulatable ML	2024
	Reviewer for NeurIPS	2024
	Reviewer for ICML Workshop on Mechanistic Interpretability	2024
	Reviewer for NeurIPS Workshop XAI in Action	2023
	Organizer, Program Chair for NeurIPS Workshop on Regulatable ML	2023
	Women in STEM Mentor (Harvard)	2022 - Present
	Women in Science & Engineering Mentor (Brown)	2020 - 2022
	Women in Computer Science Mentor (Brown)	2020 - 2022