

Sensing Humans with Language and Multiple Modalities

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This talk will begin by introducing the notion of natural language as an intuitive, rich, pervasive, inexpensive, and highly meaningful sensing modality which can help inform our understanding of human phenomena and address applied problems. Additionally, meaningful inference about human cognitive processes, experiences, and behaviors benefits from adopting an agile multimodal sensing approach. The main focus of the talk will be on introducing the NSF-funded Research Experiences for Undergraduates Site in Computational Sensing at Rochester Institute of Technology, including its theme, motivation, design, and evaluation, and lessons learned from our training model for undergraduate research experiences. In particular, through the lens of research projects conducted in the Site, the talk will provide insights into the role of linguistic and multimodal sensing for human-aware and human-centered AI. This discussion will cover both opportunities and critical challenges associated with language-inclusive and multimodal human sensing.