

# Why are we not there yet?: Bridging Behavior Modeling and Intervention



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Tuesday, Feb 6th, 2024  
12:00 – 13:00 PM  
BMI Classroom 4004  
Woodruff Memorial Research Building

or

Join us on Zoom link:  
<https://zoom.us/j/93416312710>  
Meeting ID: 93416312710



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**Abstract:** As the intelligence of everyday smart devices continues to evolve, they can already capture basic health behaviors such as physical activities and heart rates. The vision of a complete human-AI pipeline for health -- from behavior modeling to intelligent intervention -- seems to be within easy reach. Why are we not there yet? Existing computational techniques are still far from being deployable, especially for longitudinal health behavior. In this talk, I will introduce our efforts on datasets, algorithms, and a benchmark platform, towards more robust and generalizable behavior modeling using everyday data. Based on these models, I will introduce interventions driven by both behavior science theory and AI that influence users' behavior and promote their health and well-being.

**Bio:** Xuhai "Orson" Xu is a postdoc at MIT EECS. He received his PhD at the University of Washington. His research straddles multiple disciplines, including human-computer interaction, ubiquitous computing, machine learning, and health. By leveraging everyday data from various sources, Xu develops deployable machine-learning algorithms to model long-term human behavior related to well-being. Based on these behavior models, he designs new human-AI interaction and intervention techniques that benefit domain experts and support end-users to promote well-being. Xu has earned several awards, including 9 Best Paper, Best Paper Honorable Mention, and Best Artifact awards. His research has been covered by media outlets such as The Washington Post, Communication of ACM, and ACM News. He was recognized as the Gaetano Borriello Outstanding Student Award Winner at UbiComp 2022 and the UW Distinguished Dissertation Award in 2023.