

Enabling Digital and Computational Health with AI and User-Generated Data



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Tuesday, August 19, 2025

12:00 – 1:00 PM

BMI Classroom 4004

Woodruff Memorial Research Building

or

Join us on Zoom link:

<https://zoom.us/j/94073966033>



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Abstract: The prevalence of digital technology in daily living creates astounding amounts of user-generated data that can be helpful for understanding complex health conditions in a new way. These large data sources are also foundational for developing AI-driven solutions that are necessary to realize personalized healthcare. Yet, significant gaps exist around data analytic solutions capable of eliciting clinically meaningful and actionable insights from continuously generated user data. Additionally, challenges exist around the reproducibility of health-centered AI methods in literature.

To bridge these gaps, this talk will present our research efforts on opportunistic use of digital health data in the context of diabetes management. I will discuss how large volumes of user-generated data can improve our understanding of unique lifestyle factors that play a critical role in outcomes. The talk will be organized around three core topics including context-aware sensing for digital health interventions, wearable data analytics and AI for personalized care, and reproducibility in machine learning research for health. Finally, I will present concluding thoughts on how these research efforts can be extended to enable digital and computational health in other application domains.

Bio: Dr. Prioleau is an assistant professor in computer science who recently joined Emory University from Dartmouth College. Her research interest is in the application of data science to human sensing and health with a focus on ways in which digital technology can be leveraged to improve health and well-being. Dr. Prioleau's research efforts comprise developing and using mobile, wearable, and digital solutions to understand, monitor, and inform management of chronic conditions. Her research has been published in traditional CS venues and top-tier interdisciplinary venues, including npj Digital Medicine and Science Advances. Dr. Prioleau directs the Augmented Health Lab toward the bold mission of improving health with pervasive technology and data-driven solutions. She is a faculty affiliate with Emory Global Diabetes Research Center (EGDRC) and Dartmouth's Center for Technology and Behavioral Health (CTBH). Additionally, her work has been supported by top funding agencies including the National Science Foundation and National Institute of Health. For more information, see <http://www.t-prioleau.com/>.