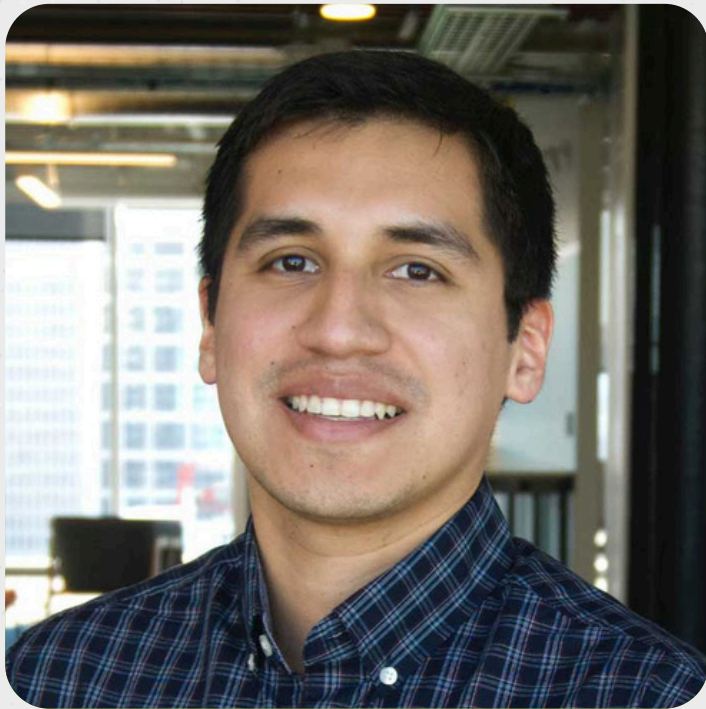




# Colloquium



**FRIDAY, JUNE 19, 2026**

**11:00 AM - 12:30 PM | 2048 CB**

**AI FOR COMPLEX HEALTH  
SYSTEMS: LEARNING, SIMULATION,  
AND DECISION-MAKING**

**Speaker: Alexander Rodriguez  
Assistant Professor  
University of Michigan**

## **Bio**

Alexander Rodríguez is an Assistant Professor of Computer Science and Engineering at the University of Michigan. His research addresses problems at the intersection of machine learning, time series analysis, scientific modeling (AI for Science), uncertainty quantification, and multi-agent systems, with primary applications in health sciences and engineering. He received his Ph.D. in Computer Science from the Georgia Institute of Technology in 2023 and previously served as a Research Fellow in the Division of Epidemiology at the Mayo Clinic.

## **Abstract**

In this talk, I will present our efforts in developing AI-driven pipelines for public health. I will first discuss deep learning architectures for real-time outbreak response, highlighting how our frameworks quantify uncertainty and leverage multimodal data. I will then present our work on LLMs for simulation-driven decision-making that operate on scientific simulators to support robust forecasting and policy analysis.