



Walter Lasecki

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Friday, November 1st

Newell-Simon Hall 1305

1:30-2:30pm

Host: Niki Kittur/Jeff Bigham

Scaffolding Robust Intelligent Systems with Crowds

Intelligent systems hold the potential to enable natural, fluid, and efficient ways to achieve users' objectives — but being able to understand and reason generally about nuanced, real-world settings is beyond the capability of current AI/ML approaches. Rethinking the way in which people interact with machines as being more than just tool use or collaboration can open new paths to designing hybrid intelligence systems that strategically combine human and machine effort at the computational level to exceed what either can do alone. Specifically, I will show that we can use real-time crowdsourcing to create robust intelligent systems that operate in a wide range of interactive application settings by scaffolding AI/ML with human intelligence from dynamic groups. These scaffolds are capable of facilitating earlier deployment in mission-critical settings and accelerating on-the-fly training, helping systems gracefully advance towards full automation in the future. I will conclude with a discussion of how the insights gained from designing these hybrid intelligence systems can inform richer human-AI interaction, and how a better understanding of dynamic team coordination will allow us to change the way we structure work and organizations at all scales.

Walter S. Lasecki is an Assistant Professor of Computer Science and Engineering at the University of Michigan, Ann Arbor, where he is the Founding Director of the Center for Hybrid Intelligence Systems (HyIntS Center) and leads the Crowds+Machines (CROMA) Lab. He also previously co-directed the UM-IBM Sapphire Project center for conversational technologies. He and his students create interactive intelligent systems that are robust enough to be used in real-world settings by combining both human and machine intelligence to exceed the capabilities of either alone. These systems help people be more productive, and improve access to the world for people with disabilities. The underlying approaches can also help re-imagine how organization and coordination is done in groups of all sizes. Prof. Lasecki received his Ph.D and M.S. from the University of Rochester in 2015, and holds degrees in Computer Science and Mathematics from Virginia Tech. In 2019, he received a DARPA Young Faculty Award (YFA) for his work on Hybrid Intelligence Systems.