



Faculty Candidate Seminar

February 13, 2026

10:00-11:15 am – Room: Boyd 306



Toward More Usable and Secure Authentication

Dr. Collins Munyendo

Postdoctoral Scholar – University of California at Berkeley

Abstract:

In today's digital world, people own many personal devices and accounts that hold a lot of sensitive information, making it critical to secure them. One way to protect access to these accounts or devices is by using strong and unique PINs or passwords. Unfortunately, users struggle with this, resorting to simple and reused passwords that leave their devices and accounts vulnerable. While password managers can allow users to manage their passwords more securely, it remains unknown whether and how people use them. In this talk, I will draw from a series of empirical studies to illustrate three main things: (1) how design choices and messaging directly impact the security of user-selected PINs or passwords, (2) why and how people use password managers, and what this means for designers, and (3) why Western-designed authentication systems fail in the majority world. I will end by sharing my vision for improving authentication across diverse contexts through a user-centered approach.

Biography:

Collins Munyendo is a postdoctoral scholar at the University of California, Berkeley where his research focuses on human-centered security and privacy. He investigates how and why people interact with, understand, use, and even misuse security and privacy tools, then designs and builds solutions that better align with users' needs and expectations. He publishes at flagship conferences in computer security, privacy, and human-computer interaction, including IEEE S&P, USENIX Security, CCS, and CHI. His work has been recognized with several awards, including the John Karat Student Research Award, a Google PhD Fellowship, a Distinguished Paper Award at IEEE S&P, the IAPP SOUPs Privacy Award, and a Top Reviewer Award at CCS. Previously, he completed his PhD in Computer Science at the George Washington University.