



UNC GREENSBORO

Department of Computer Science

Department of Computer Science Colloquium Series



Tianhao Wang, Ph.D.

Assistant Professor at University of Virginia

Date: Wednesday, Oct 22nd, 2025

Time: 2pm – 3pm

Location: Petty Building 219

Title:

Unlocking the Value of Private Data: Differentially Private Synthetic Data Generation

Abstract:

Despite massive data generation, access to sensitive datasets for research and development remains severely restricted, leading to "data poverty" and hindering innovation. Differentially private synthetic data generation offers a robust framework to create realistic, privacy-preserving datasets, unlocking their value without compromising individual confidentiality. In this talk, I will highlight our group's recent advancements in this domain, including novel algorithms and comprehensive benchmarking efforts to evaluate the utility and privacy trade-offs of synthetic data and talk about ongoing and future research directions addressing technical challenges and examining approaches across various data modalities.

Biography:

Tianhao Wang is an Assistant Professor at the Department of Computer Science at University of Virginia (UVA) since Jan 2022. He held a postdoc position at Carnegie Mellon University, earned his Ph.D. in Computer Science from Purdue University in 2021, and B.E. from Fudan University in 2015. His research focus is differential privacy and AI security and privacy. He has extensive publications in top security and database conferences. His work about differentially private synthetic data generation won multiple awards in NIST's competition.