Privacy Protection through Anonymity in Location-based Services

The adoption of location-based services (LBS) brings new privacy threats to users when they look for their friends, the nearest hospital, or driving directions to places of faith. Simply masking off the identity in LBS requests is not enough, as the user location information revealed in the requests may be used to associate the sensitive information of the user back to his/her identity. In this talk, I will discuss various privacy threats to LBS users, and concentrate on the use of anonymization as a protection mechanism. Anonymity here means indistinguishability of individual users in a large group of people. I will then present a couple of specific scenarios, the corresponding defense techniques, and the evaluation metrics important in this domain.

*Joint work with C. Bettini, S. Jajodia, and students.

Bio:

X. Sean Wang is the Dorothean Professor of Computer Science at the University of Vermont. His research interests include database systems, data mining, information security, and temporal reasoning. He is a graduate of the University of Southern California (PhD CS) and Fudan University (MSCS and BSCS).