New app 'hides' user location from third parties
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Researchers have developed an app that blocks third parties from identifying an individual's location based on what they search for online. Credit: Jonathan Cohen, Binghamton University

Researchers who developed an app that blocks third parties from identifying an individual's location based on what they search for online received a "best paper" award at a recent conference.

A research team led by Linke Guo, assistant professor of electrical and computer engineering at Binghamton University, received a Best Paper Award at the Institute of Electrical and Electronics Engineers (IEEE) GLOBECOM Conference, Symposium on Communication & Information System Security, in San Diego on Dec. 7 for their paper titled "Privacy-preserving Verifiable Proximity Test for Location-based Services."

Globecom is one of two flagship conferences of IEEE communication society. Organizers received more than 3,000 submissions this year with only 949 paper accepted into competition. Just a single paper was honored in 12 different categories.

"This is really attached to daily life," said Guo, who presented the paper with graduate students Gaoqiang Zhuo and Qi Jia. "The trend of people using searches and social networks on smartphones which aren't well-protected is going up. Sometimes people share too much information. This is a way to help provide some security."

"With Facebook, Twitter, LinkedIn and others we provide a huge amount of data to the service providers everyday. In particular, we upload personal photos, location information, daily updates, to the Internet without any protection," Guo said. "There is such a chance for tragedy if that information is used to in a bad way."

Smartphones send gobs of data to servers in the background of local searches, GPS directions or check-ins for foodie apps. If the app developed by Guo and his team is developed further, it could help hide that information. The app is not currently available to the public, but it may be in the future.

"When we release personal information to the Internet, it is out of our control, and can be easily searched and used for malicious purposes," Guo said. "We are trying to provide a more efficient and feasible solution to make sure that kind of information is secure."

Provided by Binghamton University