19 September 2019

Secure Data Transmission over smartphones (1:00 – 1:50pm EST) AND

Dictionary Attacks on Biometrics Systems (2:00 - 2:40 pm ET)

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Topic: Secure Data Transmission over smartphones

Time: 1:00pm – 1:50pm EST

Location: https://captechu.zoom.us/j/664120328

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Presenter(s): John Yoon, Mercy College

Description: In this talk, I will introduce a few implementation issues for iphone application security. The Apps that this talk consider are not those using data easily available only on a local device but those provided from a remote server and sharing with several users. The goal of our implementation is to develop an access control mechanism that is adaptive to a cell device user and sensitive to the data transmitted from remote servers. Access control at each iphone device is determined based on user data. As such, the user data may be available on a local cell device or that can be provided from a remote server. Those data may be in plaintext or in JSON from a remote database.
As mobile devices are emerging user interfaces to various databases, the JSON data security will become an important issue especially for long-duration JSON data. This talk also introduces our ongoing research on the JSON transmission security.

Our work has been implemented on iPhone apps using Xcode and Swift. This implementation will be used in any types of classrooms.

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AND

Topic: Dictionary Attacks on Biometrics Systems

Time: 2:00pm – 2:40pm EST

Location: https://captechu.zoom.us/j/664120328

Just log in as "Guest" and enter your name. No password required.

Presenter(s): Nasir Memon, New York University

Description:
Contrary to the prevailing belief, we show that user authentication based on biometrics is vulnerable to dictionary attacks. We show the problem is particularly significant for partial prints used in smartphones and increasingly adopted for authentication tasks ranging from unlocking the devices screen up to payment authorization. We also show that speaker verification systems are also vulnerable to dictionary attacks. We then discuss ways to mitigate such attacks.

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