

Sharing Experience in Authentic Learning for Mobile Security

Authors : Kai Qian, Lixin Tao

Abstract : Mobile devices such as smartphones are getting more and more popular in our daily lives. The security vulnerability and threat attacks become a very emerging and important research and education topic in computing security discipline. There is a need to have an innovative mobile security hands-on laboratory to provide students with real world relevant mobile threat analysis and protection experience. This paper presents an authentic teaching and learning mobile security approach with smartphone devices which covers most important mobile threats in most aspects of mobile security. Each lab focuses on one type of mobile threats, such as mobile messaging threat, and conveys the threat analysis and protection in multiple ways, including lectures and tutorials, multimedia or app-based demonstration for threats analysis, and mobile app development for threat protections. This authentic learning approach is affordable and easily-adoptable which immerse students in a real world relevant learning environment with real devices. This approach can also be applied to many other mobile related courses such as mobile Java programming, database, network, and any security relevant courses so that can learn concepts and principles better with the hands-on authentic learning experience.

Keywords : mobile computing, Android, network, security, labware

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