

دوره حرفه ای تست نفوذ موبایل SANS SEC ۵۷۵

مروری بر دوره

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این دوره یکی از دوره های حرفه ایی تست نفوذ شرکت SANS در زمینه موبایل می باشد که شما را با آخرین آسیب پذیری های تحت سیستم عامل های اندروید و IOS آشنا خواهد کرد این دوره بر اساس آخرین سیلابس شرکت SANS می باشد یکی از مزایای این دوره جزوه و فیلم دوره به صورت فارسی می باشد که در آموزشگاههای دیگر ارائه نمی شود.

آنچه در این دوره خواهید آموخت

آنچه خواهید آموخت

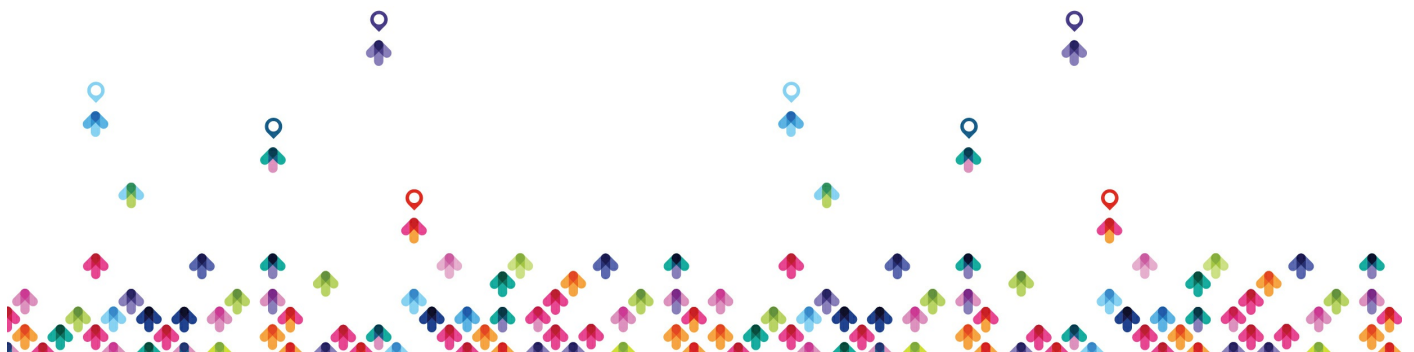
- آشنایی با مفاهیم و ساختار معماری اندروید و IOS
- آشنایی با روش های مهندسی معکوس بر روی موبایل
- آشنایی با روش های تست نفوذ بر روی سیستم عامل های اندروید
- IOS آشنایی با روش های تست نفوذ بر روی سیستم عامل های

سرفصل ها (حضور)

سرفصل ها

SEC۵۷۵.۱: Device Architecture and Common Mobile Threats

Mobile Problems and Opportunities



- Challenges and opportunities for secure mobile phone deployments
- Weaknesses in mobile devices
- Exploiting weaknesses in mobile apps: Bank account hijacking exercise

Mobile Device Platform Analysis

- iOS and Android permission management models
- Code signing weaknesses on Android
- Inter-app communication channels on iOS
- Android app execution: Android Runtime vs. Android Dalvik virtual machine
- Android Nougat security benefits

Wearable Platforms

- Application isolation and data sharing for Apple Watch
- Network connectivity and Android Wear apps
- Data exfiltration in WatchOS
- Weaknesses in wearable device authentication controls
- Deficiencies in Android Wear and storage encryption

Mobile Device Lab Analysis Tools

- Using iOS and Android emulators
- Android mobile application analysis with Android Debug Bridge (ADB) tools
- Uploading, downloading, and installing applications with ADB
- Application testing with the iOS Simulator

Mobile Device Malware Threats



- Trends and popularity of mobile device malware
- Mobile malware command and control architecture
- Efficiency of Android ransomware malware threats
- Analysis of iOS malware targeting non-jailbroken devices
- Hands-on analysis of Android malware
- Mobile malware defenses: What works and what doesn't

SEC۵۷۵.۲: Mobile Platform Access and Application Analysis

Unlocking, Rooting, and Jailbreaking Mobile Devices

- Legal issues with rooting and jailbreaking
- Jailbreaking iOS
- Android root access through unlocked bootloaders
- Root exploits for Android
- Debugging and rooting Android Wear devices
- Using a rooted or jailbroken device effectively: Tools you must have!

Mobile Phone Data Storage and File System Architecture

- Data stored on mobile devices
- Mobile device file system structure
- Decoding sensitive data from database files on iOS and Android
- Extracting data from Android backups
- Using file system artifacts for location disclosure attacks beyond GPS coordinates



- Hands-on attacks against password management apps

Network Activity Monitoring

- Mobile application network capture and data extraction
- Capturing iOS cellular/4G network traffic
- Transparent network proxying for data capture
- Encrypted data capture manipulation
- Extracting files and sensitive content from network captures
- Recovering sensitive data from popular cloud storage providers

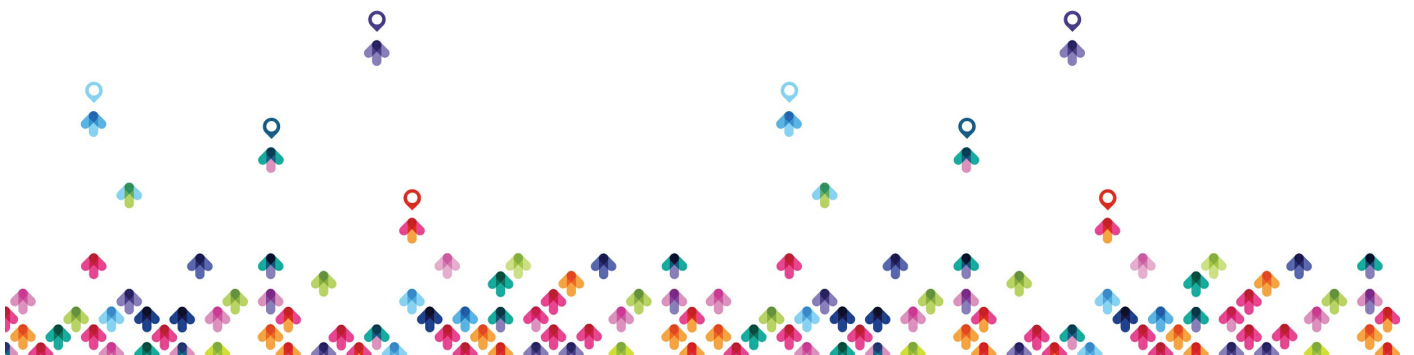
Static Application Analysis

- Retrieving iOS and Android apps for reverse engineering analysis
- Decompiling Android applications including Android Wear
- Circumventing iOS app encryption with Dumpdecrypted and Rasticrac
- Header analysis and Objective-C disassembly
- Accelerating iOS disassembly: Hopper and IDA Pro
- Swift iOS apps and reverse engineering tools

SEC۵۷۵.۳: Mobile Application Reverse Engineering

Automated Application Analysis Systems

- iOS application vulnerability analysis with Needle
- Structured iOS application header analysis
- Tracing iOS application behavior and API use



- Effective Android application analysis with Androwarn
- Android application interaction and Intent manipulation with Drozer
- Extracting secrets with KeychainDumper

Reverse Engineering Obfuscated Applications

- Identifying obfuscation techniques
- Decompiling obfuscated applications
- Effective reconstructed code annotation with Android Studio
- Decrypting obfuscated content with Simplify

Application Report Cards

- Step-by-step recommendations for application analysis
- Tools and techniques for mobile platform vulnerability identification and evaluation
- Recommended libraries and code examples for developers
- Detailed recommendations for jailbreak detection, certificate pinning, and application integrity verification
- Android and iOS critical data storage: Keychain and key store recommendations

SEC۵۷۵.۴: Penetration Testing Mobile Devices, Part ۱

Manipulating Application Behavior



- Runtime iOS application manipulation with Cypcript
- iOS method swizzling
- Android application manipulation with Apktool
- Reading and modifying Dalvik bytecode
- Adding Android application functionality, from Java to Dalvik bytecode

Using Mobile Device Remote Access Trojans

- Building RAT tools for mobile device attacks
- Hiding RATs in legitimate Android apps
- Customizing RATs to evade anti-virus tools
- Integrating the Metasploit Framework into your mobile pen test
- Effective deployment tactics for mobile device Phishing attacks

Wireless Network Probe Mapping

- Monitoring network probing activity
- Visualizing network discovery and search
- Wireless anonymity attacks
- Exploiting iOS and Android wireless network scanning characteristics

Weak Wireless Attacks

- Wireless network scanning and assessment
- Exploiting weak wireless infrastructure
- Monitoring mobile device network scanning
- Exploiting "Google WiFi" and iPad or iPhone captive portal detection
- Secure network impersonation



Enterprise Wireless Security Attacks

- Exploiting WPA₂ Enterprise networks with certificate impersonation
- Manipulating enterprise wireless authentication protocols
- RADIUS server impersonation attacks

SEC۵۷۵.۵: Penetration Testing Mobile Devices, Part ۲

Network Manipulation Attacks

- Using man-in-the-middle tools against mobile devices
- Sniffing, modifying, and dropping packets as man-in-the-middle
- Mobile application data injection attacks

Sidejacking Attacks

- Identifying mobile applications vulnerable to sidejacking
- Using sidejacking effectively in a penetration test
- Hands-on exploitation of popular mobile applications

SSL/TLS Attacks

- Exploiting HTTPS transactions with man-in-the-middle attacks
- Core pen test technique: TLS impersonation against iOS Mail.app for password harvesting



- Integrating man-in-the-middle tools with Burp Suite for effective HTTP manipulation attacks

Client-Side Injection Attacks

- Android WebView and JavaScript injection for remote code execution
- Harvesting session cookies through Android browser vulnerabilities with Metasploit
- Using the Spec.js library for mobile browser vulnerability detection and exploit delivery

Web Framework Attacks

- Site impersonation attacks
- Application cross-site scripting exploits
- Remote browser manipulation and control
- Data leakage detection and analysis
- Hands-on attacks: Mobile banking app transaction manipulation

Back-end Application Support Attacks

Exploiting SQL injection in mobile application frameworks

Leveraging client-side injection attacks

Getting end-to-end control of mobile application server resources

مخاطبان دوره

مخاطبان دوره



- کارشناسان امنیت و تست نفوذ و برنامه نویسان موبایل

پیش نیازها

پیش نیازها

- آشنایی با برنامه نویسی موبایل

