MELVIN **VARKEY**

Cybersecurity Consultant | Penetration Tester | Information Security Analyst | Technophile

**PROFESSIONAL STATEMENT**

* Results-oriented Cybersecurity professional with 2 years (approx.) of industry experience and 2 years of academic exposure to the field of Cybersecurity systems and Networks
* Expertise in attack and pen-testing Web application, Network devices and Thick-client software. Experienced in Bug hunting and reporting
* Currently pursuing for ECSA (EC-Council Certified Security Analyst) certification; candidate for exam 02/2018

**SOCIAL**

**011917034776933**

melvinvarkey@live.com

[**github.com/melvinvarkey**](https://github.com/melvinvarkey)



**linkedin.com/in/melvin-varkey-113a3156**



**EXPERIENCE**

**Ernst and Young (EY)** *Mumbai, India*

**CYBERSECURITY ASSOCIATE CONSULTANT *Aug. 2016 – Present***

* Conducted Vulnerability Assessment and Penetration Testing of Web applications and infrastructure for multiple clients and prepared custom reports, describing the vulnerabilities, its impact in business and proper recommendations
* Conducted Secure Configuration Review of Several technologies like Firewalls (Palo alto), Switches, Wi-Fi Routers, Windows and Linux based Operating Systems etc. and prepared individual reports
* Conducted penetration testing of mobile applications based on iOS and Android for various clients
* Prepared Minimum Baseline Security Standard (MBSS) documents for different technologies for various clients
* Prepared security audit automation scripts in bash and python

**ACHIEVEMENTS**

* Received **“Client Champion”** award from Ernst and Young for always exceeding client expectations
* Received **“Certification of Appreciation”** from Intel for working through Intel’s responsible security disclosure process
* Received **“Friendly Hacker badge”** from Khan Academy for reporting a vulnerability in their web application

**KEY COMPETENCIES**

* Vulnerability Assessment, attack and Penetration Testing for Web applications, Thick-client applications, Mobile application (IOS and Android)
* Profound knowledge in DAST (Dynamic Application Security Testing) and SAST (Static Application Security Testing) methodologies
* Conducted network vulnerability assessment using tools as well as manually to find attack vectors and find impact and create custom reports with recommendation steps
* Profound knowledge of virtualization technologies like - VMware workstation, Virtual Box, QEMU
* Strong network background and deep understanding of different protocols like TCP, UDP, HTTP, DNS, DHCP, FTP, SSH, SAMBA, ARP, ICMP; Also different TCP/UDP ports
* Bug hunter as a hobby in Bugcrowd and Hackerone (Responsibly reported security weakness in Intel website and khan academy)
* Expert in finding OWASP Top 10 vulnerabilities, threat classifications and SANS Top 25 vulnerabilities, its impact and proper recommendations
* Expertise in Cyber Security information gathering from appropriate tools and databases.
* Advocate of Open-source and FOSS (Free and Open Source Software)
* Comfortable to adapt new challenges and changing environment
* Strong team player and leadership qualities

**TECHNICAL SKILLS**

**SECURITY TOOLS**

* Automated Scanners: Nessus, Burp Suit (Proficient), Acunetix, Nikto, Wapiti, SqlMap, Nmap
* Manual Pentesting: Burp Suit (Proficient), Metasploit, Tamper Data (Firefox Addon), Burp suit extender CO2
* Mobile Pentesting: Android SDK, Genymotion Emulator, Java Decompiler, Dex2Jar, Drozer, Appie, ADB commands, Busybox
* Wireless Pentesting: Wireshark, Fern Wi-Fi Cracker, Aircrack
* Wireshark, Splunk, Cuckoo Sandbox, Android SDK, Genymotion emulator ,Java Decompiler, Dex2jar,Burp suite, Fiddler, IDA pro, Drozer, Appie, Netcat, John the ripper, Cain and Abel, Netstumbler, Volatility

**OTHER TOOLS**

* OS / Environments: Kali OS, Windows and Linux
* Web application development: PHP, ASP.Net, HTML, JavaScript, Django, Python, MySQL, Oracle DBMS
* Office Tools: Microsoft Excel, PowerPoint, Word, Power BI, LaTex, Openoffice, Prezi

**OTHER PROJECTS**

**Security attacks and mitigation of ZigBee based edge devices**

AMRITA VISWA VIDYAPEETHAM *Jan. 2016 - May 2016*

* Analyzed the different types of security threats possible on Wireless Sensor Networks
* Mitigated the identified threats using machine learning techniques.
* Attacks identified on the wireless sensor networks include the Sybil attack, Denial-Of-Service attack and the False Data Injection attack

**Develop Library for a Big Data Framework**

AMRITA VISWA VIDYAPEETHAM *Nov. 2015 - Dec. 2015*

* Developed a library for processing scientific data-files in-memory using the framework Apache Spark
* The scientific data files are in NetCDF format, this is commonly used in climatology, meteorology and oceanic applications (E.g.: Weather forecasting and climate change)
* The library was developed in Scala Programming language using Idea IntelliJ IDE

**Android Application** *CSIR-NET*

AMRITA VISWA VIDYAPEETHAM *Jan. 2016 - Mar. 2016*

* Developed an android Application for preparing CSIR-NET exams
* The application helps students to learn the concepts of Aptitude examination as well as CSIR-NET exam patterns
* Application contains an option to take a mock examination
* The application has 10000-50000 downloads in Playstore

**Google Playstore download link:** [**https://play.google.com/store/apps/details?id=com.django.mel.csir\_net**](https://play.google.com/store/apps/details?id=com.django.mel.csir_net)

**File Encryption using FUSE**

AMRITA VISWA VIDYAPEETHAM *Sep. 2015 - Oct. 2015*

* The project used the FUSE (**F**ile system in **U**ser **S**pac**E**) module to create an encrypted file system that lets unprivileged users to mount and add all the important files in this mount point. Later this mount point is encrypted using a key and is safeguarded from other external attacks

**Project can be found here** [**https://github.com/melvinvarkey/encyptoFS**](https://github.com/melvinvarkey/encyptoFS)

**EDUCATION**

**Master’s Degree in Cyber Security Systems and Networks** *Amrita University*

AMRITA VISHWA VIDYAPEETHAM, KERALA, INDIA ***August. 2014 - July. 2016***

* Notable Coursework: Operating System and Security, Advanced Computer Networks, Cryptography, Advanced Security of Networked Systems, Cloud Security, Security of Cyber Physical Systems, Database and Application Security
* Electives: Android Internals and Security, Practical Capture the Flag Exercises
* Fluency: Python, Android Programming, HTML, Linux Commands

**Bachelor’s Degree in Computer Science and Engineering** *Mahatma Gandhi University*

AMAL JYOTHI COLLEGE OF ENGINEERING, KERALA, INDIA ***Mar. 2009 - July. 2013***

* Notable Coursework: Data structures, Algorithms, Computer Networking, Computer Graphics, Web Application Development