



## Training Topic

### *Malware Reverse*

It's time for us to learn how bad guys actually build their bad stuff. Students will learn how the bad guys actually build /structure their malware and make enchantment along the way. Students will learn how to malware utilize various API gadgets/scripts. By learning the arts of the malware, awareness can be raised to make the future a bit better.

Disclaimer: This is for education purpose only

Detail Training Syllabus for 2 Days:

0 - Introduction to reverse engineering tools

- \* Compilers
- \* Assemblers
- \* Disassemblers
- \* Debuggers

1 - C programming crash course

- \* Introduction
- \* Using MSVC Compiler
- \* Variables
- \* Procedure Call/Function
- \* Calling Convention
- \* Strings
- \* Structure
- \* Pointer
- \* Handle
- \* Dynamic Memory
- \* Exercises

2 - x86 assembly programming crash course

- \* Registers
- \* Memory and Addressing
- \* Instructions
- \* Calling Convention
- \* Exercises

3 - Disassembly tools

- \* IDA Pro
- \* Basic usage
- \* Common reversing techniques
- \* Rewrite simple asm functions in C

\* Exercises

4 - Debugging tools

\* OllyDBG

\* Basic usage

\* Common debugging techniques

\* Exercises

Required Software:

1 - Visual Studio 2015 Community Edition - \*Dont' forget\* select Visual C++ during installation

- <https://www.visualstudio.com/downloads/>

2 - IDA Freeware

- [https://www.hex-rays.com/products/ida/support/download\\_freeware.shtml](https://www.hex-rays.com/products/ida/support/download_freeware.shtml)

3 - OllyDBG 2.0

- <http://ollydbg.de/version2.html>

4 - Hiew32 Demo version

- <http://www.hiew.ru/#hiew>

### **About Trainers – Azlam Mukhtar**

Azlan Mukhtar is a Co-Founder of Eraxen PLT, a cybersecurity startup company, trying to solve malware attack problems. For the past 9 years, he was working for F-Secure, Symantec, and Blue Coat as malware analyst and researcher fighting malware. As a reverse engineering enthusiast, he loves sharing knowledge, doing training for the communities (sometimes for free), and occasionally participate reverse engineering challenges such as Flare-On by FireEye. Previously experience as Malware Analyst at F-Secure, Symantec, and Blue Coat.