Xin Huang

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Technical Overview

- Worked with C++ in software development for more than 7 years on various sizes of projects
- Programming languages: C# (able to read MSIL); Python (major scripting lang); x86 ASM, C#, Java (sometimes); Racket, Lua, Ruby (long time ago)
- Reverse engineering: IDA, Ollydbg, gdb, windbg
- Filesystem forensics: Scalpel, TSK
- Network forensics: Kolide Fleet, OSQuery
- Network & web security: Wireshark, Metasploit, OWASP ZAP, Burp
- Familiar with Windows & Linux development

Experience

Carnegie Mellon University, CMU-MSIT Program, 2018 - Present

I am studying Information Security, focusing on network security & forensics.

HTTP Traffic Censorship Measurement, Research Project

- Identifies HTTP censorship at HTTP & TCP level
- Uses Python to test censorship over collected keywords
- Monitors and identifies churns of censored keywords

Python For Filesystem Forensics, Host-based Forensics Course Project (*link on GitLab*)

- Uses Jupyter Notebook for filesystem forensics, providing improved CLI interfaces than existing tools
- Features result reproduction, scripting analysis and automated report generation
- Implement MBR, NTFS and FAT parser in Python
- Extensible to support other filesystems

Schlumberger, slb.com, 2011 - 2017

2014/12 - 2017/1, Maxwell DataCore Team, Senior Software Engineer

I made computation faster.

- **Individually replaced computation engine by re-writing using Intel's Threading Building Blocks, reduced lines of code by 90%, achieving same performance and correctness**
- **Optimized geophysical algorithms by using SSE2/AVX, performance improved by 20%**

- Lead feature request communication and development
- Performance profiling using Intel vTune and investigated performance bottleneck
- Created fast instrumentation and tracing library to collect performance data during execution for C/C++
- Refactored legacy code and added tests on project of size > 20M lines of code

2013/1 - 2014/12, Maxwell Environment Team, Software Engineer

I made CI system distributed and run faster.

- Designed and implemented continuous integration system, aiming for distributed and cloud-based
- Introduced Pester as PowerShell unit test framework, hosted reading club & coding Dojos to help colleagues learn TDD & PowerShell
- Hosted various coding Dojos inside company, presented in internal workshops and events

2011/8 - 2012/12, Maxwell Framework Team, Software Engineer

- Helped team as Scrum Master; hosted coding Dojos every week to improve TDD, OOAD skills, and to learn other programming languages
- Developed & maintained Maxwell framework data processing component
- Developed tools for data validation and performance benchmark

CYOU .Inc, cyou.com, Game Developer, 2010 - 2011

- Feature development of item, family, ladder and PVP system
- Improved font rending performance
- Created C# delegate style event system, supporting asynchronized method invocation
- Created Lua script framework for generic item operation
- Developed game robot for pressure test, extensible via Lua

Other Activities

- Co-organizer of Global Day of CodeRetreat Beijing 2013, 2014 & 2015

Education

- 2018 - M.S. in Information Security, Kobe MSIT-IS Dual-Degree Program, Carneige Mellon University
- 2006 - B.S. in Computer Science, Beijing University of Posts & Telecommunications