Corbin Souffrant

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OBJECTIVE

Seeking either a full time position or an internship. Willing to work in Computer Security Research, Vulnerability Research and Development, or Malware Analysis.

EDUCATION

University of Illinois Urbana-Champaign
Computer Science Engineering B.S., expected May 2014
GPA 3.28/4.0

Relevant Courses

CS461 - Computer Security I	CS460 - Computer Security Lab
CS498SH - Malware Analysis Lab	CS498LA - Undergraduate Research Lab
CS598MAN - Applied Cryptography	CS467 - Social Visualization
CS591RHC - Security Reading Group	CS598MCC - Network Security
CS498AL1 - Digital Forensics Lab	

SKILLS

Security

- Static and Dynamic Analysis: IDAPro, OllyDBG, GDB, Wireshark
- Vulnerability Discovery: Fuzzer Development, Source Code Auditing, Testing Framework Design
- Malware Analysis: Unpacking techniques, Anti-debugging + Anti-Reversing removal

Languages and Libraries

- C/C++, Python, x86, MIPS, Java
- ROS (Robot Operating System), OpenCV, Android

WORK EXPERIENCE

University of Illinois - Researcher   Fall 13
- Worked with both Professor Darko Marinov and Professor Matthew Caesar on a new project that aimed to detect incompatibilities between code sources. Involves analyzing previous literature in the field and coming up with a model to support our project.

University of Illinois - Teaching Assistant   Fall 13
- Spent the semester as an Engineering Learning Assistant.
- Helped encourage freshmen in Computer Science to get the most out of their college education. Designed and presented lectures as well as acting as a mentor for the students.

Raytheon SIGOVS - Intern   Summer 13
- Vulnerability Discovery using a variety of methods. Developed a smart fuzzer and setup a testing framework. Found bugs via source code auditing. Worked with browser security and applications on both x86 and ARM architectures.

University of Illinois - Researcher   Spring - Summer 12
- Worked with Professor Sam King to design and implement an application framework for general purpose robots. This involved developing an API to communicate with the robot via a web and android application. Also wrote applications in python and C++.
- Presented a poster for the research at a research symposium in Siebel in Spring 2012

PROJECTS

Automated Malware Analysis   Spring 13
- Set up a Virtual Machine that accepted binaries from a web interface. I then used YARA and CuckooSandbox to process the binary and store the results in a database. I worked with 3 other students for a semester project in the Security Lab course.

Boston Bombing Spam/Malware Prevention   Spring 13
- Worked with John Bambenek to analyze a stream of spam related to the Boston bombing, analyzed domain registrations, basic malware reversing
- Thanked on isc.sans.org (SANS Internet Storm Center) and featured on WAND local news

Quality Evaluation of Obfuscation   Spring 13
- Attempted to develop a metric to allow for the development of a framework for analyzing the relative strength of an obfuscation routine. I worked with one other student for a semester project in the Network Security course.
- Presented a poster at Siebel Center in Spring 2013

Malware Clustering Script   Fall 12
- Developed a simple malware cluster script written in python using the k-means algorithm. This involved acquiring XML outputs from CWSandbox and modeling a feature-set from the results. I wrote this as a final project for a statistics course.

UIUC Security CTF Team Presenter   Fall 12
- Designed and presented a series of lectures on skills required to participate in a Security CTF competition

Android Telemetry for a Vehicle   Fall 12 - Spring 13
- Developed an android application that communicated with an Arduino device connected to a car engine. This provided real-time feedback on car speed, distance traveled, and time elapsed for the Ecoillini Shell Marathon Car

ACTIVITIES

- CSAW Security CTF 2012, placed 18th for qualifying teams with the ACM Security CTF Team
- EBay Hackathon Spring 2013 – Best Use of API for a visualization of product sales, with 3 team members.
- IEEE Hackathon Fall 2012 – Using OpenCV and an OCR script, developed an application that would read in a video feed from a webcam and record the Identification Number from an Student ID.
- ACM Special Interest Group for Security: Member since Spring 2012, Chair since Fall 2012
- Undergraduate Computer Science Research Symposium 2012 Poster Presentation
- Illinois Technology Association Fall Challenge Finalist 2011