Corbin Souffrant

Address
507 E Green St. Apt. B
Urbana, IL 61801

Contact
souffra2@illinois.edu
812-381-3984

Objective

Seeking a full time position after May 2014 graduation. I am considering a Master's degree, in which case I'm looking for an internship. Willing to work in the areas of Computer Security Research, Vulnerability Discovery, and Malware Analysis.

Education

- **University of Illinois at Urbana-Champaign** Expected Graduation: May 2014
  Bachelor of Science in Computer Science **GPA: 3.28/4.00**
  Relevant Courses: Computer Security, Computer Security Lab, Malware Analysis Lab, Undergraduate Research Lab, Applied Cryptography, Social Visualization, Security Reading Group, Network Security, Digital Forensics Lab

Experience

- **University of Illinois** Urbana, IL
  Researcher Fall 2013
  - 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** Urbana, IL
  Engineering Learning Assistant Fall 2013
  - 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** Annapolis Junction, MD
  Vulnerability Research and Development Intern Summer 2013
  - 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** Urbana, IL
  Researcher Spring 2012 - Fall 2012
  - 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.

Skills

- **Static And Dynamic Analysis**: IDAPro, OllyDBG, GDB, Wireshark
  Vulnerability Discovery: Fuzzer Development, Source Code Auditing, Testing Framework Design
  Malware Analysis: Unpacking Techniques, Anti-debugging and Anti-reversing removal
- **Languages**: C, C++, Python, Java, x86, MIPS, OCaml
  Libraries: openCV, ROS (Robot Operating System), Android
  Misc.: svn, git, Emacs, Eclipse, Windows, Linux (Ubuntu, Arch)

Projects

- **Automated Malware Analysis** Class Project
  Spring 2013
  - 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** Freelance
  Spring 2013
  - 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** Class Project
  Spring 2013
  - 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** Class Project
  Fall 2012

  - 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.
- **Security CTF Team Presenter** ACM
  Fall 2012
  - Designed and presented a series of lectures on skills required to participate in a Security CTF competition.
- **Android Telemetry for a Vehicle** EcoIllini
  Fall 2012 - Spring 2013
  - 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 2013**: Best Use of API for visualization of product sales. I developed this with 3 team members.
- **IEEE Hackathon 2012**: Using OpenCV and an OCR script, developed an application that would read in a video feed from a webcam and record the ID number from a Student ID.
- **ACM Special Interest Group For Security**: Member since Spring 2012, Chair since Fall 2012.
- **Undergraduate Computer Science Research Symposium 2012**: Presented a poster on my research with Sam King.
- **Illinois Technology Association Fall Challenge**: Participated in the finals of this software development competition.