Tyler Lukasiewicz

Languages

C/C++, Python, Assembly (x86, x64, and ARM), Java

Internships

- o Summer 2016: Raytheon SI Government Solutions
 - Did vulnerability Research on Qualcomm's TrustZone for Android
 - · Worked on Reverse Engineering the TrustZone kernel on the Nexus 5 and Nexus 6
 - Developed a Fuzzer in python that will send commands to TrustZone and record responses from kernel functions
 - Day to day activities involved:
 - · Extensive Reverse Engineering in IDA
 - · Writing Idapython scripts to expedite research
 - · Research on previously released TrustZone exploits
 - Documentation of progress
 - · Fuzzer development.

Hacking As A (Legal) Hobby

- Elected Vice President of HackUCF https://www.hackucf.org (2016-2017), a nationally recognized cyber security club.
- Captain of UCF's offensive security team, Knightsec
- Lead Capture the Flag (CTF) workshops, in which 50-60 students learned the essentials of binary exploitation and reverse engineering. Topics include working in the Linux environment, x86 assembly, debugging with GDB and IDA, buffer overflows, Return Oriented Programming, writing shellcode, shellcode injection, heap exploitation, socket programming, and python scripting.

- Wrote 10 binary exploitation challenges for school-wide CTF https://ctf.hackucf.org. Challenges cover Reverse Engineering, Buffer-Overflow, shellcode, and ROP.
- Wrote, recorded, and edited x86 Assembly Instructional video for HackUCF.
 - httpss://youtu.be/75gBFiFtAb8
- Participated in several Capture the Flag competitions
 - writeups available at https://kabla.me/blog/writeups
- Experience managing https server for personal website and school-wide CTF.
 - LAMP
 - IpTables
 - Docker

Research

Collaborating with a multi disciplined Big Data analysis team from The University of Central Florida (under the direction of Dr. Jun Wang) to produce numerous technical publication and grant applications. Served as a paid technical writer/editor on the team. Publications available on personal website.

- Sebo: Selective Bulk Analysis Optimization in Big Data Processing.
 - NMC PRObE
- o OPAS:Analysis and Optimization of Parallel Data Access on Distributed File Systems
 - IEEE
- SLAM: Scalable Locality-Aware Middleware for I/O in Scientic Analysis and Visualization
 - NMC PRObE

Education

BS in Mathematics from The University of Central Florida, 3.2 GPA (references available upon request)