SEBASTIAN COSTACHE

SECURITY RESEARCHER

Mobile number available
on request

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LANGUAGES

C

PYTHON

GOLANG

X86 ASSEMBLY

EDUCATION

UNIVERSITY OF NEW SOUTH WALES
BACHELOR OF COMPUTER SCIENCE/COMMERCE

Average Mark: Distinction   JAN 2018 - DEC 2020

Relevant Courses:

- COMP6447 - System and Software Security Assessment- Mark of 95
- COMP3231 - Operating Systems- Mark of 80

WORK EXPERIENCE

TRUSTWORTHY SYSTEMS GROUP, DATA61 CSIRO
RESEARCH SCHOLARSHIP   DEC 2019 - MAY 2020

Aided a research project working to benchmark the performance of the seL4 microkernel used in a hypervisor configuration.

Designed and implemented a framework to assist with automating the workflow of the benchmarking process, from image compilation to benchmark running and output recording.

TECHNICAL SKILLS

Contributions to open source software

- Found several memory corruption bugs in the Janet programming language (Issues #416, #409, #407). These were found by fuzz testing, with dynamic analysis used to pinpoint the cause of the bugs

Currently hosting a personal blog at seb-sec.github.io

- CTF challenge writeups and other technical content
- Personal project descriptions

PROJECTS

Black box fuzzer   GOLANG

- Worked on the harness component of the fuzzer, dealing with managing the binary to be tested. Implemented simple code coverage with ptrace, as well as a memory snapshot mechanism to improve performance

Educational binary exploitation environment   C/PYTHON

- Designed a system to allow practice of different types of exploitation at the user's own pace

Linux kernel rootkit   C

- Developed to obtain more familiarity with components and workings of the Linux kernel. Features include process/file hiding and privilege escalation

VOLUNTEERING

Justice of Peace, UNSW campus   FEB 2018 - DEC 2019

- Responsible for certifying documents and witnessing declarations while following strict procedures

REFERENCES

Available on request