

Lucas Biery

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github.com/tiecoon — gitlab.com/tiecoon

Education

Rensselaer Polytechnic Institute

Bachelor of Computer Science

August 2016 – December 2019

(Expected)

Work Experience

Manticore Developer *Trail of Bits*

Summer 2019

- Worked on improving usability and fixing bugs of the symbolic execution engine Manticore.
- Wrote and configured sphinx based python documentation.

Advanced Technology Laboratories Intern *Lockheed Martin ATL*

Summer 2018

- Worked on a cross platform networking proxy in C to allow for obfuscation and encryption, developed with full support for Windows, Linux and Mac.

Projects

B7 gitlab.com/b7-re/B7

- An open source tool written in rust to solve CTF challenges
- An instruction count based coverage guided fuzzer for solving side channel vulnerable programs. Uses various tools such as ptrace, Linux perf and Dynamorio.
- Lead other developers in the Rensselaer Center for Open Source every semester and teach them the techniques and technologies so they can contribute.

BBS Project for program analysis class

- Implements a program constraint extractor using Binary Ninja's Medium Level Intermediate Language in Single Static Assignment form.
- Produces SMT-LIB formatted constraints on variables to reach a certain point in a program.

Interests

Reverse engineering, program analysis, binary exploitation, hardware hacking, system administration, software development

Technologies

- C, Rust, Python, C++, Java, Go, JavaScript, \LaTeX
- Ghidra, Ida, Binary Ninja, Dynamorio, Microsoft Z3, Libfuzzer

Activities

Member and current System Administrator of RPISEC - RPI Computer Security Club

- Compete in CTFs and help teach skills at weekly meetings
- Work on rewriting RPISEC infrastructure to use modern provisioning tools, such as Ansible
- Help orchestrate infrastructure during meetings and internal CTFs

Comptia A+ and Security+ certified