Giridhar Prasath Rajendran

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FDUCATION

UNIVERSITY OF MARYLAND | M.ENGG CYBERSECURITY College Park, MD, USA | Aug 2023 - May 2025 Coursework: Applied Cryptography, Pentesting, Software Security, PL Security, Cloud Security, ML Security

- Published a research report on homomorphic encryption, solved CTF-style PQC challenges, and explored recent research on lattice-based post-quantum cryptography. [Mini Blog-post]
- Solved user-space and kernel-space heap exploitation challenges on pwn.college dojos, focusing on Linux kernel exploitation as part of the ENPM809V course.

AMRITA VISHWA VIDYAPEETHAM | B.Tech Computer Science Coimbatore, KA, IND | Jul 2015 - Jul 2019 Coursework: Operating Systems, OOP, Data Structures and Algorithms, Compilers, Computer Networks

EXPERIENCE

GOOGLE SUMMER OF CODE | CONTRIBUTOR

Remote - USA | May 2024 - Aug 2024

- Improved ROP gadget discovery and classification by implementing constraint parsing techniques and wrote unit test cases for different architectures using Rizin APIs and MinUnit.
- Developed rz-solver, an ROP SMT solver plugin utilizing Rizin analysis plugins and Rizin IL APIs to strengthen binary analysis and constraint solving. (WIP)

VMWARE TANZU(BROADCOM) | Member of Technical Staff - 2 Bengaluru, IND | Sep 2021 - Jul 2023

- Refactored process discovery and report generation features in containerization services, enhancing security monitoring and integrating SAST into GitLab CI pipelines for continuous vulnerability assessment.
- Fixed critical security vulnerabilities in VMware Tanzu Application Transformer, built a secure API gateway for user-facing APIs, and wrote unit tests for CSRF and SSRF attacks.

VERSA NETWORKS | SECURITY SOFTWARE ENGINEER

Bengaluru, IND | Jul 2019 - Aug 2021

- Developed secure and maintainable code for in SASE products like Captive Portal, URL Filtering, and User Identification services, deployed across multiple customer sites.
- Mitigated critical and major vulnerabilities by debugging memory and performance issues using Valgrind and Sanitizers (ASAN, TSAN), improving security and system stability across deployments.
- · Added essential CLI commands to Versa OS which is critical for debugging during customer escalations

VERSA NETWORKS | GRADUATE ENGINEER TRAINEE

Bengaluru, IND | Jan 2019 - Jun 2019

· Built a secure API gateway with RBAC, ABAC, and OAuth-based authorization using KoaJS.

SKILLS

LANGUAGES: C, Java, Python, Assembly, Bash, Golang

TECHNOLOGIES: Systems Programming, Binary Exploitation, Reversing, Web Development, DevOps

FRAMEWORKS: Protobuf, Valgrind, Pwntools, Ghidra, Rizin, GDB, LLVM, Fuzzing, ASAN, TSAN

PROJECTS

OXDEADFEED | C, Protobuf, Makefile, Bash https://github.com/giridharprasath/oxdeadfeed Message passing client-server application to understand epoll i/o multiplexing and asynchronous tasks

OPEN SOURCE CONTRIBUTIONS | C, GDB, MINUNIT, PYTHON https://github.com/giridharprasath
Actively contribute minor patches and report issues in JEmalloc, Linux, and the cve-bin-tool.
Implemented Tcache parsing per thread feature which helps to debug heap in multithreaded linux binaries

ACHIEVEMENTS

CTFTIME 2020 | JAN 2020 - AUG 2021

https://ctftime.org/stats/2021/IN

Rank 2 in the country and 33 globally. Coauthored Web, Reversing Challenges and organized DarkCtf 2020.

ICPC | Jul 2016 - Aug 2017

https://icpc.global/private/teams/350998

Honorable mentions in ICPC Regionals 2017, 2018 (ICPC - Amritapuri, Chennai)