Giridhar Prasath Rajendran

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EDUCATION

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

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 | Member of Technical Staff - 2

Bengaluru, IND | Sep 2021 - Jul 2023

- Develop an internal Request and task engine which provides retry and async execution capabilities resulting in a 50% reduction in Kubernetes objects' deployment time and enabling seamless rollbacks
- Develop a SaaS offering for containerizing legacy applications to assist cloud migration.
- Refactor process discovery and report generation features of containerization services, and integrate SAST into Gitlab CI workflows for monitoring application security and integrity
- Develop a CLI client application to communicate with the Application modernization tool

VERSA NETWORKS | SECURITY SOFTWARE ENGINEER

Bengaluru, IND | Jul 2019 - Aug 2021

- Resolved critical/major bugs and engineered highly maintainable code for Captive Portal, URL filtering, and User Identification services, deploying them across multiple customer sites
- Debug memory and performance issues using Valgrind and Sanitizers(ASAN, TSAN) and fix them.
- Add essential CLI commands to Versa OS which is critical for debugging during customer escalations
- Integrate Versa OS with Versa Analytics for analyzing VPN Client info and traffic

VERSA NETWORKS | GRADUATE ENGINEER TRAINEE

Bengaluru, IND | Jan 2019 - Jun 2019

 Implemented a secure API gateway with RBAC and ABAC, and designed OAuth-based user authorization using KoaJS for internal tools

SKILLS

LANGUAGES: C, C++, Java, Python, Assembly, Bash, Golang, Javascript, SQL, Typescript

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

FRAMEWORKS: Spring Boot, YANG, Protobuf, Valgrind, Pwntools, Ghidra, Rizin, NodeJS, GDB

Amazon RDS, Kubernetes, RabbitMQ, Docker, GKE, EKS, Git, Cobra-CLI, 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.
Implement 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)