Pranav Krishna M

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Education

Amrita Vishwa Vidyapeetham, B.Tech in Computer Science   Oct 2022 – Current
- CGPA: 8.83/10.0

Experience

Traboda Security Research Intern (August 2024 - March 2025)   Kerala
- Researched vulnerabilities in internal products and replicated zero-day/n-day V8 exploits targeting race conditions, use-after-free, and type confusion in Chrome's Turbofan and Maglev compilers.
- Designed challenges for multiple CTFs, including a heap-based bug in website parsing used in ICC Chile - World Finals, and conducted workshops for students in binary exploitation, web security, and reverse engineering.

Global CyberSecurity Camp 2025 Participant   Taiwan
- Selected for an international cybersecurity training program focused on OT Security, Kernel Exploitation, and Automotive Security.
- Built SSO Tracker, a Chrome extension that tracks SSO logins, displays session history, and alerts users about session activity. Won first prize and received a CREST exam voucher.

CTF Finalist   Saudi Arabia
- Qualified for the on-site finals of BlackHat MEA CTF 2024 and helped the team achieve 27th place out of 600 teams by solving Binary Exploitation Challenges.

CTF Events Organizer
- Developed and deployed multiple stack- and heap-based challenges in various Capture The Flag competitions such as Bsides CTF (India), Namibia National Cybersecurity Competition (Southern Africa), zh3r0 CTF (India).

Projects

Pwn Collection   github/pwn-hub
- Curated an open-source repository of stack, heap, and browser exploitation techniques to help beginners jump-start their journey in binary exploitation.

bi0s CTF 2024   ctftime/bi0sCTF24
- Designed an Android challenge to exploit the dynamic memory allocator bug via the WebView interface, contributing to a strong competition score of 95.48/100 on CTFtime.org. Documented the results in a blog post.

CTF Managing Bot   github/bot
- Developed a Discord-based CTF management bot with MySQL backend to track solves, share challenge data, and coordinate team efforts in real-time.

Achievements

2025 Achievements:
TUCTF* : Rank 5 (global), Rank 1 (India)
GCC 2025 : Best Project Award

2024 Achievements:
RVCE-IITB CTF : Rank 3 (2 person team, India)
VolgaCTF Quals* : Rank 2 (globally)

2023 Achievements:
SquareCTF* : Rank 5 (globally) and Rank 1 (India)
crewCTF* : Rank 7 (globally) and Rank 1 (India)

2022 Achievements:
niteCTF (ARESx) : Rank 1 (globally)
FooBar CTF (ARESx) : Rank 1 (globally)

2019 Achievements: InCTFj National CTF – Winner: Premier cybersecurity CTF for high school students.
                                                      *: Part of team bi0s

Technical Skills

Memory Corruption: Stack/ Heap exploitation, race conditions, type confusion, and WebAssembly exploitation
Languages: C/ C++, x86 Assembly, JavaScript, Python, Bash
Tools: IDA, Ghidra, Pwntools, Radare2, Binary Ninja, Docker, QEMU, GDB