Praneeth Sarode

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in praneeth-sarode ○ DarkPhoenix42

Objective

Aspiring low-level programmer and security enthusiast passionate about computer graphics, cryptography, and binary exploitation. I participate regularly in CTF (Capture The Flag) events. I am a versatile developer with experience across diverse domains.

Education

Indian Institute Of Technology, Roorkee   *Aug 2023 – Present*
Bachelor of Technology in Computer Science and Engineering

- CGPA: 9.64/10.0
- **Coursework:** Programming and Data Structures, Design and Analysis of Algorithm, Computer Architecture and Organization, Cryptography.

Sri Chaitanya Junior College, Hyderabad   *Mar 2022 – Mar 2023*
Class 12

- Grades: 989/1000.
- **Coursework:** Physics, Chemistry, Mathematics, English, Sanskrit

Experience

Software Developer   *Roorkee, Uttarakhand*
SDSLabs   *Feb 2024 - Present*

- Participated in multiple hackathons and game jams as a part of the SDSLabs team.
- Delivered lectures on Ideas for Hackathons attended by more than 200 students.
- Part of the organizing team of SyntaxError 11, IIT Roorkee's largest tech hackathon.

CTF Player and Cryptographer   *Roorkee, Uttarakhand*
InfoSecIITR   *June 2024 - Present*

- Took part in and won numerous Capture the Flag (CTF) events as a part of the InfoSecIITR team.
- Conducted BackdoorCTF 2024 with 1200+ Participants globally.
- Conducted WinterHackCTF 2025 with over 200 participants throughout the institute.

Achievements

ETHIndia 2024: Won the first prize in the Walrus track by building a full Rust toolchain that does sharding, pinning, setup, encryption and many more things with a team of 4. ETHIndia ↗ Github ↗

Flare On 11: Completed 8/10 reverse engineering challenges and achieved 332nd place out of 4157 players.

CSAW Qualifiers 2024: Stood 1st in India and 13th Globally with InfoSecIITR. CSAW-Quals ↗

CSAW Finals 2024: Stood 1st in India and 7th Globally with InfoSecIITR. CSAW-Finals ↗

CryptoHack: Currently ranked 72nd globally among 75,000+ users. CryptoHack ↗

JerseyCTF IV 2024: Finished 1st globally with InfoSecIITR.

UMassCTF 2024: Finished 5th globally with InfoSecIITR.

b01lersCTF 2024: Finished 6th globally with InfoSecIITR.

BCA CTF 5.0: Finished 7th globally as part of InfoSecIITR.

AmateursCTF 2024: Finished 9th Globally with InfoSecIITR.

n00bCTF 2024: Finished 1st solo across the IITR campus in the CTF organized by InfoSecIITR.

BackdoorCTF 2024: Participated as part of Th3 0rd3r of Wh!t3 l0tu5 and finished 4th among teams from IITR Campus.

JEE Advanced: AIR 969 out of 1.8 lakh candidates.

JEE Mains: AIR 413 out of 11.5 lakh candidates.

Projects

Chip 8 Emulator   *Chip 8 emulator* ↗
- Implemented a fully functioning Chip 8 emulator that can emulate full Chip 8 games with all opcodes.
- Tools Used: Rust, SDL2

Torrent Client   *p-torrent* ↗
- Wrote a concurrent torrent client using golang using mutexes and goroutines.
- Tools Used: Golang.

Fix8   *Fix8* ↗
- Collaborated with teammates on a course project to design a Turing-complete 8-bit Instruction Set Architecture (ISA) with fixed 8-bit instruction lengths. Implemented support for conditional logic, loops, and basic arithmetic operations, employing clever techniques to maximize functionality within strict length constraints. Developed an assembler and emulator to enable accurate translation and execution of instructions
- Tools Used: C++.

ReDi-OpenCL   *ReDi-OpenCL* ↗
- Build a simulation for the reaction diffusion algorithm based on the Gray-Scott model using shaders for calculation and SDL2 for rendering.
- Tools Used: C++, SDL2, shaders.

LibraLynx   *LibraLynx* ↗
- Created a full fledged library management system using the Go HTML templating engine to render pages with MySQL as the database. It has many features such JSON Web Tokens, secure routes, password hashing. Is completely Dockerized with Docker Compose along with config files for Apache to virtually host on your computer.
- Tools Used: Golang, Apache, MySQL, Docker, JavaScript, HTML, CSS.

ch3ckm8   *ch3ckm8* ↗
- Built a chess engine with alpha-beta pruning, piece-square tables, move ordering, and command-line UI as well as supporting UCI, along with teammates for a hackathon.
- Tools Used: Golang.

Pathfinding-Algorithms-Visualiser   *Pathfinding-Algorithms-Visualiser* ↗
- A Python program to visualise different pathfinding algorithms like A*, Djikstra and Greedy BFS. It includes support for maze generation.
- Tools Used: Python, Pygame.

Technologies

Languages: C++, C, Rust, x86_64 Assembly, VHDL, Go, Python, Bash, HTML, CSS, JavaScript.

Technologies: Git, Bash, Docker, MySQL, PostgreSQL, MongoDB, ExpressJS, SageMath, Ansible, SDL2, Linux, OpenGL, Postman, IDA-64, gdb.