Praneeth Sarode

Hyderabad praneeth_s@cs.iitr.ac.in +91 9381489495 darkphoenix42.github.io

in praneeth-sarode DarkPhoenix42 HumorousWanderer

Objective

Aspiring low-level programmer and security enthusiast passionate about computer graphics, cryptography, and binary exploitation. I regularly participate 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

Google Summer of Code   *Remote May 2025 -*
libssh   *Present*

- Working on implementing client-side support for FIDO/U2F authentication in libssh using the libfido2.
- Unit tests and Integration tests against an openSSH server.

Software Developer   *Roorkee, Uttarakhand Feb*
SDSLabs   *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

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

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

JerseyCTF IV 2024 & JerseyCTF V 2025: Finished 1st globally with InfoSecIITR.

UMassCTF 2024: Finished 5th 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

fenris   *fenris* ↗

- ○ A networked file system with a client-server architecture, that allows multiple users to simultaneous access a remote files using various synchronization primitives.
- ○ Includes features such as ECDH key exchange, AES-GCM encryption and Zlib compression for all messages in a custom protocol implemented using Protobufs, LRU caching of recently accessed files.
- ○ Tools Used: C++, CMake, Github Actions, Protobufs, CryptoPP, zlib, spdlog.

Chip8 Emulator   *Chip8 emulator* ↗

- ○ A fully functioning Chip8 emulator that can emulate Chip8 games with all opcodes along with visuals and sounds.
- ○ Tools Used: Rust, SDL2

ReDi-OpenCL   *ReDi-OpenCL* ↗

- ○ A simulator for the reaction diffusion algorithm based on the Gray-Scott model using OpenCL shaders for calculation and SDL2 for rendering.
- ○ Tools Used: C++, SDL2, OpenCL.

LibraLynx   *LibraLynx* ↗

- ○ A full fledged library management system using the Go HTML templating engine to render pages, with MySQL as the database. It includes features such as JSON Web Tokens, secure routes, password hashing and is completely dockerized and includes config files for Apache to virtually host on your computer.
- ○ Tools Used: Golang, Apache, MySQL, Docker, JavaScript, HTML, CSS.

p-torrent   *p-torrent* ↗

- ○ A simple, concurrent, download-only torrent client including torrent file parsing using goroutines.
- ○ Tools Used: Golang.

Technologies

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

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