Niranjhan SU

Github: github.com/DrunkenCloud **Z**Portfolio Website: niranjhansu.vercel.app **Z**

Email: niranjhansu@gmail.com 🗹
LinkedIn: @niranjhan-su 🖸

Education

B.Tech in Computer Science with a Specialization in Cyber Security

Shiv Nadar University Chennai, Semester I to III

Point of Contact for Cyber Security Vertical of Coding Club

Co - Founder of Team Edita, a Capture The Flag Team 🗹

Projects

ScheduleMaker - Timetable Generator and Editor (TypeScript, Next.js, Node.js)

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- Addressed college's manual timetable creation challenges by designing and implementing the back-end for an automated timetable generator. It also supports editing and swapping of Lectures within generated timetables.
- Tackled complex scheduling constraints by developing a sophisticated **algorithm** that balances **faculty** availability, their class timming preferences, **lab slot preferences**, and incorporates **locking features** for fixed sessions.
- Integrated solution with Next. is frontend, successfully reducing timetable generation time by more than 90%.

Clox and Jlox - Lox Language Interpreters (Java, Make, C)

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- Developed complete Lox language interpreters from scratch, implementing Lexers, Parsers, and Compilers.
- Successfully integrated advanced language features like OOPS, closures, lexical scoping, and recursion.
- Conducted low-level profiling to identify bottlenecks and implemented optimizations, improving performance.

Fou - Terminal Text Editor (C, Make)

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- Designed a Vim-like terminal text editor with comprehensive undo/redo operations and cursor navigation.
- Tackled performance challenges for large file editing by implementing an optional **piece table structure** as an alternative to traditional text storage methods which improved performance by over 70% for such content.
- Maintained intuitive multiple modes for input and commands controlled by keyboard and mouse interaction.

Welt - Webnovel Viewer (Android Studio, Flask, PyQt, BeautifulSoup)

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- Developed **cross-platform applications** to scrape web-novels using BeautifulSoup and store them to read offline.
- Created an interface specifically optimized for long-form reading with detection for downloading missing chapters, thus preserving content even when removed from original sources, and synchronization for reading progress.

Technical Skills

Languages: C, C++, Python, Java, Kotlin, TypeScript, Javascript, Bash, Rust, Go

Frameworks & Libraries: Flask, Django, PyQt, Express.js, Swing/AWT, Socket.io, React, Next.js, Gin

Technologies: Git, Make, Android Studio, GDB, Valgrind, SQLite, PostgreSQL, MongoDB, Firebase, Supabase

Certificates: Programming in Modern C++ (NPTEL) Z - Ranked in the top 5% of Course Takers. Gained expertise in C++ 23, including smart pointers, inline functions, meta programming, and advanced OOPS concepts.

Awards and Experience

Contributor - Ankidroid 🗹

Apr 2025 - Present

- Fixed memory leaks within the Android application located in page fragments and TTS Engine, **improving app** stability. Rewrote code to remove a **deprecated annotation** to align the codebase with modern standards.
- Gained hands-on experience in large-scale open-source project with 1M+ users and 1000s of contributors.

Event Management and Volunteering - Capture The Flag (CTF)

Aug 2023 - Present

- Co-organized and hosted multiple CTF events, including EditaCTF 2.0, which reached 100+ participants.
- Designed and deployed many challenges across fields like cyrptography, web exploitation, and reverse engineering.

Top 1% Global Ranking, and more than 100 Rooms solved on TryHackMe 🗹

TryHackMe

Contest Knight with a Rating of 1853 and more than 600 problems solved on LeetCode 🗹

LeetCode

Hackathon Finalist - Envithon 2024 (SNU Hackathon), Devhouse 2025 (VITC Hackathon)

2024 - 2025

Completed all the Challenges in Advent of Code 2024

Advent of Code