

Niranjhan S.U

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Education

B.Tech in Computer Science with a Specialization in Cyber

Aug 2023 - Present

Shiv Nadar University Chennai, Semester I to III

CGPA: **8.5/10** [🔗](#)

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)* [🔗](#)

- 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 timing preferences, **lab slot preferences**, and incorporates **locking features** for fixed sessions.
- Integrated solution with Next.js frontend, successfully **reducing** timetable generation time by **more than 90%**.

Clox and Jlox - Lox Language Interpreters *(Java, Make, C)* [🔗](#)

- 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)* [🔗](#)

- 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)* [🔗](#)

- 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, Bash, Rust

Frameworks & Libraries: Flask, Django, PyQt, Express.js, Swing/AWT, Socket.io, Discord Bot APIs, Next.js

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

Certificates: **Programming in Modern C++ (NPTEL)** [🔗](#) - 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 a **memory leak** related to page fragments in the Android app, **improving app stability**. Rewrote code to remove a **deprecated annotation** to align the codebase with modern Android development 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 cryptography, 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