Aayush Shukla

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SUMMARY

Highly motivated Computer Science and Engineering student with a strong academic record (GPA: 9.05) and hands-on experience in web development, algorithms, and performance optimization. Passionate about leveraging robust engineering principles to build innovative and high-quality software solutions that empower users. Seeking an opportunity to contribute to cutting-edge projects in a collaborative environment.

EDUCATION

Vellore Institute of Technology, Chennai Campus   Chennai, India
Bachelor of Technology, Computer Science and Engineering. GPA: 9.05   *Aug 2023 - Present*

PROJECTS

[Celeris] | *FastAPI, Kotlin, Java, Supabase*   *Apr 2025*
- **Offline mobile payment system for areas with limited internet access.**
- Built a Kotlin-based Android app supporting SMS-powered transactions
- Created a simple FastAPI backend for transaction handling
- Designed a Java-based SMS gateway with online help bridging offline users to online services
- Utilized Supabase (Postgres) for the Celeris Database storing user and transaction data

Bitboard Chess Engine and Supervised AI | *Java, Maven*   *Jun 2022 – Present*
- **A high-performance chess engine built from scratch using bitboard techniques.**
- Implemented Min-Max with Alpha-Beta Pruning, improving move evaluation speed 6x
- Achieved 124M+ move generations at depth 6 in 62 seconds using optimized bitwise logic
- Applied test-driven development practices in chess engine optimization and validation of move generation

College Fest Website | *React, Next.js, Tailwind CSS, IndexedDB*   *Feb 2025 – Mar 2025*
- **Redesigned VIT Chennai's annual fest website's events page for performance and UX.**
- Reduced memory usage from 4GB to 300MB using IndexedDB caching for Base64 images
- Implemented lazy loading with Intersection Observer and custom LazyImage component
- Boosted search UX via debounced input and conditional client-side rendering

GitHub Profile Trophy – OSS Contribution | *TypeScript, Deno*   *Jul 2024*
- **Contributed to a popular open-source project with 6k+ stars, enabling trophy exclusion by title via query params**
- Implemented logic to dynamically filter trophies like `-Stars` and `-Followers` in the URL, improving UX
- Followed code quality guidelines and ensured full test coverage using Deno's lint, format, and test workflows
- Addressed long-standing community issue #272, enhancing developer personalization options

TECHNICAL SKILLS

Languages: Java, Python, C/C++, SQL, JavaScript, HTML/CSS
Web: React, Next.js, Astro, Tailwind CSS, FastAPI, Supabase
Tools: Git, GitHub
CS Fundamentals: Data Structures and Algorithms, Object Oriented Programming, Operating Systems, Computer Networks, Database Management Systems

ACHIEVEMENTS

Top 65 out of 5000+ participants – Devshouse'25   Apr 2025
GDG on Campus, VIT Chennai   *Certificate*

1st **place – AI-Impulse Hackathon @ TechnoVIT'23**   Oct 2023
School of Electronics Engineering, VIT Chennai   *Certificate*

3rd **place – Figma × Apple Vision Design Hackathon**   Sep 2023
GDG on Campus, VIT Chennai   *Certificate*