Sidharth Kumar Singh

Computer Science Undergraduate

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EDUCATION

- **Indian Institute of Information Technology, Lucknow** Aug 2023 - May 2027
  B.Tech in Computer Science - CGPA: 8.5/10

EXPERIENCE

- **GraphiteEditor** ☑ | **Rust, WebAssembly, TypeScript** Open-Source Contributor
  - Fixed text layer properties persistence during editing, improving UX by preventing unintended deselection when users modify text attributes like font size, color, and styling.
  - Added comprehensive vector path closing functionality via Ctrl+J shortcut, enabling automatic endpoint connection for both selected points and single continuous subpaths across different layers.
  - Developed robust layer merging system that handles multiple path-type combinations (spline-spline, path-spline, path-path) while maintaining geometric properties and node graph structures.

PROJECTS

- **Affinity** ☑ | **React, Rust, PostgreSQL, Kubernetes, Docker, Jenkins, Socket.IO, Redis, Serenity**
  - **Overview:** Architected a full-stack social hub connecting 100+ users with shared interests, leveraging React for a responsive front-end and Rust for high-performance back-end tasks, reducing data processing time by 30%.
  - Implemented a code runner that reduced query response time by 40% using Redis caching, alongside WebRTC video calls achieving sub-15ms latency through WebSocket integration.
  - Supports deployment with Kubernetes and Helm for orchestration and rolling updates, achieving 99.9% uptime in a scalable architecture supporting concurrent user interactions and real-time analytics.
  - Crafted powerful and customizable Discord bot ☑ designed for seamless interaction and automation within the Affinity Discord server.

- **Soundscore** ☑ | **Solana, Next.js, PhantomWallet, Anchor, TypeScript, Tailwind**
  - **Overview:** Launched music review platform where artists can pay to have their songs rated by listeners worldwide. In return, listeners earn rewards for their feedback, fostering a dynamic and engaging music ecosystem.
  - Leveraged Solana, PhantomWallet, and Anchor to manage payments and reviews, ensuring fast transactions with up to 50% lower fees than traditional payment systems.
  - Developed a responsive and intuitive interface using Next.js, TypeScript, and Tailwind. Optimized design and performance reduced load times by 40%, ensuring seamless interactions for artists and listeners.

ACHIEVEMENTS

- Completed **Hacktoberfest** 2024 with **4** PRs merged in the **Hyperswitch** project. Contributions ☑
- Actively Contributing to **GraphiteEditor** Contributions ☑
- Rated as **Specialist on Codeforces**. cpprofile ☑
- Achieved a **3-star** rating on CodeChef (**max rating: 1654**). cpprofile ☑
- Awarded **Shubhra Khar Linux Foundation Scholarship 2024**. Link ☑
- Secured **1st prize** in Linux Ricing contest initiated by Equinox, the techfest of IIIT, Lucknow.
- Selected as **Project Admin** @GSSOC. Project Link ☑

SKILLS & OTHERS

- **Languages**: Rust, JavaScript, Python, C++, Java, TypeScript, SQL, Bash
- **Frontend**: React, NextJS, Tailwind, Accernity UI, Bootstrap, Shadcn, Ratatui
- **Backend**: Express.js, Axum, SpringBoot
- **Database**: MongoDB, MySQL, PostgreSQL, Firebase
- **Cloud & DevOps**: AWS, Docker, Kubernetes, Git, Linux, Jenkins, Nginx, Github Actions
- **Soft Skills**: Teamwork, Communication, Initiative, Leadership
- **Relevant Coursework**: Operating System, Compiler Design, Database Management System, Object Oriented Programming, Data Structures

POSITIONS OF RESPONSIBILITY

- **Member - Axios FOSS Wing, IIIT Lucknow** | Aug 2024 - Present
  - Directed logistics and conducted interactive hands-on sessions on open-source tools and contributions, engaging a large group of participants. This helped increase student interest and awareness of FOSS initiatives, fostering a more active community.