Vansh Agrawal

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Education

National Institute of Technology, Kurukshetra   August 2023 - May 2027
Bachelor of Technology in Information Technology **CGPA: 9.5625** *(upto 4th Sem)*   *Kurukshetra, Haryana*
- **Relevant Coursework:** Data Structures and Algorithms, Operating Systems, Database Management System, Python, Computer Networks, Internet of Things, Object-Oriented Programming

Surajkund International School - CBSE , Faridabad   2022-23
Class-XII - 97.0 %   *Faridabad, Haryana*

Skills

Programming Languages: C, C++, Python, Java
Web Technologies: HTML, CSS, JavaScript, ReactJS, NodeJS, Express, MongoDB, Mongoose
Developers Tools: Postman, VS Code, Git, GitHub, Jupyter Notebook, Arduino IDE, Tinkercad, Proteus
Soft Skills: Teamwork, Leadership, Communication, Public Speaking

Projects

BlackBox – Reverse-Engineering Challenge Platform | *MERN, JS Obfuscation, Firebase* | 🔗Live Link   Oct 2025
- Built a real-time coding challenge where users reverse-engineer hidden functions through input–output trials and LISP-style submissions.
- Secured client logic using **JS Obfuscator** and custom hashing scripts storing all equivalent valid expressions for safe verification.
- Implemented a **real-time leaderboard** with live scores, time-based tie-breakers, and strict Firestore rules allowing read-all but write-self access.
- Added authenticated access and persistent sessions so users resume from the same level after reloads or connectivity issues, enabling scalable zero-cost operation.

CodePal | *MERN Stack, Monaco Editor, Socket.io* | 🐙 *Source Code*   December 2024
- Built a real-time collaborative code editor using Monaco Editor, enabling **seamless multi-user editing and** featuring syntax highlighting, autocompletion, and error detection.
- Utilized Socket.io for real-time code synchronization, ensuring instant updates across all connected users.

ScheduLine | *MERN Stack, Tailwind CSS* | 🐙 *Source Code*   August-September 2024
- Engineered an Automated Bus Scheduling and Route Management System for Delhi Transport Corporation
- Implemented a secure user **Authentication and Authorization** system with **JWT tokens** and **bcrypt**.
- Used **MongoDB** for handling over **1,000+** users' bus routes, crew schedules, and leave applications.
- Collaborated in the Smart India Hackathon (SIH), ensuring smooth backend and frontend integration.

Achievements

- Qualified the College Finals of **Smart India Hackathon**, ranking among the top 25 out of 120+ teams.
- Finalist among the **top 60** out of 5,000+ participants in Salesforce's Futureforce AI Hackathon
- Secured **1st position** in the Encoder coding contest conducted by NIT Kurukshetra.
- Rated 3-star at CodeChef (Highest Rating **1629**) - (Profile Link)
- Achieved **1807** Rating (Top 10%) on LeetCode - (Profile Link)
- Rated **Specialist** (Highest Rating **1426**) at Codeforces - (Profile Link)

Volunteer

Technobyte (Technical & Managerial Society)   Oct 2023 – Present
Tech Team Member
- Optimized the website for the flagship event **Excalibur** of TechSpardha (Annual Tech Fest of NIT Kurukshetra), enhancing user engagement and supporting over 1,000 visitors during peak traffic. (Link)

Innovation Cell   Jan 2024 – Present
Dedicated Member
- **Coordinated a Workshop on Ideation and Innovation**: Worked with a team to deliver a session to **250+** attendees, focusing on creative problem-solving and practical innovation strategies.

NITKKRA (Alumini Association)   Oct 2024 – Present
Web Developer, Podcast Host