

# Suraj Singh Chahar

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## PROJECTS

### VISUAL ALGORITHM STUDIO | Github

- Engineered interactive algorithm visualizations covering **trees, graphs, searching, and sorting**, which enhanced **user comprehension by 45%** and **decision-making accuracy by 30%**, according to user surveys.
- Created visual representations for **20+ algorithms**, with **87 out of 93 users finding them effective** and **92 preferring visual learning**, improving engagement and retention.

### INTELLI LEARN PLATFORM | Github | Live

- Engineered an **EdTech platform** prototype with personalized learning paths and progress tracking, projected to **improve content retention by 30%**, based on insights from **50+ simulated user interactions**.
- Implemented **JWT-based authentication** with role-based access control for instructors and students across multiple course modules, ensuring data security and controlled access to platform resources.
- Built a real-time student dashboard integrating progress analytics and performance insights, designed to enhance **user engagement by 25%** upon deployment.

### JSON TREE VISUALIZER | Github | Live

- Effortlessly explore and customize **JSON data** in detailed tree structures, optimizing data analysis and visualization.
- Quickly visualize large JSON datasets in tree format, capable of handling **datasets of up to 100,000 nodes** with smooth rendering performance.
- Incorporated **feedback from 100 beta testers**, resulting in a **90% satisfaction rate** for ease of use, intuitive navigation, and the ability to **save up to 30%** of time spent on data exploration and analysis tasks.

## EXPERIENCE

### FREELANCE | SOFTWARE ENGINEER

September 2024 - present | Gurugram, Haryana

- Automated **CI/CD pipeline** for a **React** (Vite + TypeScript) app using **GitHub Actions**, enabling seamless deployment to a **Hostinger VPS** via **FTP/SFTP** with error logging and fully automated updates on code push.
- Designed and optimized scalable **React.js applications** with a responsive architecture, reusable components, and high-performance rendering, improving **rendering speed by 35%**.
- Architected a responsive **Next.js** web application, featuring streamlined state management and enhanced API efficiency across 4 key pages resulting in **50% faster data fetching speeds**.

### ETHNUS | SOFTWARE ENGINEER INTERN

May 2023 - July 2023 | Bengaluru, Karnataka

- End-to-end development of a food delivery application, ensuring secure **user authentication** and seamless functionality.
- Migrated legacy code to an npm module**, cutting developer **effort by 15%**, and integrated **Razorpay** for **secure transactions with 95% user satisfaction** in the testing phase.
- Optimized performance through testing and debugging, **reducing load time by 20%** and ensuring a bug-free deployment.

## EDUCATION

### VELLORE INSTITUTE OF TECHNOLOGY

B.TECH IN COMPUTER SCIENCE AND ENGINEERING WITH SPECIALIZATION IN GAMING TECHNOLOGY  
October 2020 - October 2024 | Bhopal  
GPA: 8.41 / 10

## SKILLS

### PROGRAMMING

C++ • JavaScript • TypeScript

### FRONTEND DEVELOPMENT

React.js • Redux • Next.js • Tailwind CSS • Tauri

### BACKEND DEVELOPMENT

Node.js • Express.js • MongoDB • MySQL • Redis • Kafka

### DEVOPS & CLOUD

Docker • Kubernetes • Amazon Web Services (AWS) • Terraform • Ansible • Jenkins

### VERSION CONTROL & COLLAB

Git • GitHub • Jira

### TOOLS & UTILITIES

Postman • Bash/Shell Scripting • Linux

## ACHIEVEMENTS

### SERVICE SELECTION BOARD

Led team exercises during SSB selection, earning a **top recommendation**.

### NCC LEADERSHIP

Led a **50-member NCC contingent** in a state-level drill.

### HACKATHON RECOGNITION

Developed a solution to key challenges, securing a **finalist position**.

## CERTIFICATIONS

DevOps Certification : [Link](#)

Web Development Bootcamp : [Link](#)

Game Design and Development : [Link](#)

Industry Oriented Training : [Link](#)

## LINKS

Github: [iamsurajchahar](#)

LinkedIn: [imsurajchahar](#)

Portfolio: [imsurajchahar](#)