Sujal Kumar

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EDUCATION

Dr. B. R. Ambedkar National Institute of Technology Jalandhar

India

Bachelor of Technology - Information Technology

2022 - 2026

Coursework: Operating Systems, Data Structures & Algorithms, Machine Learning, Computer Networks, Database Management

Bhartiya Vidya Mandir Sr. Sec. School (U.S.N.) , Ludhiana

India

High School (Senior Secondary Education)

2020 - 2022

TECHNICAL SKILLS

- Programming Languages: C++, JavaScript, Python, C, TypeScript, SQL
- Frameworks & Libraries: React.js, Next.js, Node.js, Express.js, FastAPI, Tailwind CSS, Redux, Flask, Tensorflow
- Tools & Platforms: Git, GitHub, GitLab, Figma, Anaconda, Postman, Jest, Notion, Prisma, n8n
- Databases: MySQL, SQLite, MongoDB, DynamoDB, PostgreSQL, Redis
- DevOps & Cloud: Docker, Kubernetes, Ansible, CI/CD pipelines, AWS (EC2, S3, Lambda), Terraform, Jenkins
- Professional Skills: Agile Methodology, Technical Leadership, Project Management, Cross-functional Collaboration

Work Experience

Gurukul Foundation

Nov 2024 - Dec 2024

Remote

Frontend Developer

- Web Application Development: Developed a feature-rich web application with Next.js, achieving a 95% Lighthouse score for mobile-first design and ensuring full WCAG 2.1 accessibility compliance.
- **Performance Tuning**: Improved user retention by 15% by implementing code splitting and lazy loading, which decreased initial page load time by over 30%.

GrapplTech Remote

Software Development Engineer Intern

May 2024 - Nov 2024

- **UI Development**: Revamped the main landing page's Hero section using React.js and TailwindCSS, leading to a 20% reduction in bounce rate and a 10% increase in average user session duration.
- Frontend Optimization: Resolved critical rendering bottlenecks using performance analysis tools, cutting page load times by 40% and boosting Core Web Vitals scores into the green.

TECHNICAL PROJECTS

• Routeify 🗹

React.js, Node.js, Express.js, Socket.io, MongoDB, TailwindCSS, Razorpay

- Delivered a full-stack ride-hailing platform with real-time GPS tracking via WebSockets and optimized routing using geolocation APIs.
- Engineered a MongoDB schema with geospatial indexing that matched drivers to riders in under 500ms, successfully scaling to support 800+ concurrent users.
- Built a responsive Redux-based interface that simplified the booking flow into a 3-step process, integrating a
 payment gateway with a 99.9% transaction success rate.

• ZingGuru 🛂

MERN, TailwindCSS, FastAPI, Agentic AI, MongoDB, RAG-based LLM

- Won 2nd Runner-up at HackTU 6.0 by creating an AI learning hub with adaptive study paths and gamified modules to enhance user engagement.
- Deployed a Retrieval-Augmented Generation (RAG) LLM to provide personalized career guidance and generate video summaries across 5+ languages.
- Architected a centralized studio to aggregate content from platforms like Coursera and Udemy, cutting content search time for users by an estimated 50%.

ACHIEVEMENTS & LEADERSHIP

- HackTU 6.0 Hackathon: Secured 2nd Runner-up among 200+ teams in a 48-hour national hackathon at Thapar Institute of Engineering & Technology.
- Competitive Programming: Solved 900+ DSA and SQL problems, achieving a Specialist (1400+) rank on CodeForces and placing in the top 10% of users on LeetCode (1800+ rating).
- Google Developer Groups: Managed web infrastructure deployment for HackMol 6.0 as a core team member, supporting over 500 participants with zero downtime during the 48-hour event.
- Data Processing Research: Led research into applying Hadoop for scalable data processing, developing a model that improved recommendation accuracy in hotel booking platforms by 12%.