

Avinash Saroj

✉ avinashsaroj99@gmail.com

📍 Pratapgarh, Uttar Pradesh

☎ 9044587898

🔗 Portfolio

Technical Skills

Programming Languages — C, Java, JavaScript (ES6+), Python, TypeScript

Databases — MySQL, MongoDB

Web Development — HTML5, CSS3, SASS, Bootstrap, React.js, Next.js, Redux, TailwindCSS

Backend Technologies — Node.js, Express.js, RESTful APIs, GraphQL, WebSockets, JWT, OAuth, Passport.js

DevOps & Tools — Git, GitHub, Docker, Jenkins, CI/CD, Kubernetes, Vercel, Heroku, AWS (EC2, S3, Lambda)

Testing & Debugging — Jest, Mocha, Chai, Postman, Selenium

Version Control — Git, GitHub, GitLab, Bitbucket

Academic Qualification

B-Tech (Computer Science Engineering), IIIT Sricity ☑ 2020 – 2024 | Chittoor, Andhra Pradesh

Relevant Coursework: Data Structures and Algorithms, Operating Systems, Database Management, Software Engineering, Artificial Intelligence

12th Grade, Maharshi Patanjali Vidya Mandir (M.P.V.M) Ganga Gurukulam 2019 | Prayagraj, Uttar Pradesh

10th Grade, Swami Janki Sharan (S.J.S.) Public School 2017 | Amethi, Uttar Pradesh

Projects

Finance Mate, Technologies: React.js | Node.js | MongoDB | JWT | REST API | Axios | CORS | Material UI | AWS Lambda ☑

- Built a dynamic personal finance tracking application that provides real-time tracking of expenses, financial planning, and smart budgeting insights.
- Used **MongoDB** for transaction data storage with **Mongoose** for schema management and **aggregation pipelines** for advanced reporting.
- Deployed via **Vercel** (frontend) and **AWS Lambda** (backend) for a scalable serverless architecture.
- Achieved a **30% faster API response time** by implementing asynchronous functions and optimizing database queries.

Metro Path Finder, Technologies: Dijkstra's Algorithm | React.js | Node.js | GraphQL | Hash Maps | BFS/DFS | A* Algorithm ☑

- Designed and implemented a real-time metro navigation system using **Dijkstra's** and **A* algorithms** to calculate the shortest path between stations.
- Optimized the app for performance using **graph traversal algorithms** and reduced computation time by **20%** with efficient memory handling.
- Utilized **GraphQL** for dynamic data fetching and ensured high performance and responsiveness with **priority queues** and **binary search trees** for faster lookups.

AlgoVision : Sorting Algorithm Visualizer,

Technologies: JavaScript | HTML | CSS | React.js | Animation | Sorting Algorithms (Quick, Merge, Bubble) ☑

- Developed an interactive web application to visualize various sorting algorithms, enhancing user understanding of algorithmic efficiency and behavior.
- Implemented dynamic animations to illustrate the step-by-step process of sorting, improving engagement and educational value.
- Optimized rendering performance, ensuring smooth transitions and minimal lag during sorting operations.

Activities and Leadership

IOTA Club, IIIT Sricity, Core Member 2022/08 – present

- Led and organized **hackathons** and technical workshops with over **500+ participants**, promoting innovation in the tech community.
- Fostered collaboration by mentoring students in developing projects, resulting in **20+ successful prototypes**.

ENIGMA (Cyber Security Club), IIIT Sricity, Core Member 2021/07 – 2022/12

- Coordinated a **Capture The Flag (CTF) event** with **80+ participants**, enhancing hands-on learning in cybersecurity.
- Conducted **educational sessions** on ethical hacking and network security, impacting over **200 juniors**.