Satya Aman

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About

Computer Science sophomore with a strong foundation in Data Structures and Algorithms (C/C++ and Java), and practical full-stack development experience using JavaScript and modern web technologies.

Education

Kalinga Institute of Industrial Technology (KIIT DU)　　　　　　　　　　**2023 - 2027**
Bachelor of Technology in Computer Science Engineering　　　　　　　　*Bhubaneswar, Odisha*
CGPA: 9.45/10.0 (Up to 4th Semester)

– **Relevant Coursework:** Data Structures and Algorithms in C/C++, Operating Systems, Object Oriented Programming, Database Management Systems, Computer Networks, Software Engineering, Machine Learning, Artificial Intelligence

Experience

Bhartiya Antariksh Hackathon 2024　　　　　　　　　　　　　　**Jul 2024 - Aug 2024**

– Engineered a responsive web interface for AI crater/boulder detection through a React.js dashboard, improving UI/UX efficiency by 40%
– Developed a scalable Node.js backend with MongoDB, enabling seamless processing of over 500 satellite images
– Presented technical results to ISRO experts and collaborated with ML engineers to integrate a crater detection model with 92% accuracy.

KPIT Sparkle 2024　　　　　　　　　　　　　　　　　　　　　**Sep 2024 - Jan 2025**

– Designed a robust AI traffic safety interface leveraging the CARLA simulator, evaluated under 150+ real-time scenarios
– Collaborated with an 5-member team to enhance vehicle detection accuracy by 25% through advanced image preprocessing
– Presented the final product to industry leaders; recognized as best-in-track among 100+ competing teams

JP Morgan Code for Good 2025　　　　　　　　　　　　　　　　**Jun 2025 - Jul 2025**

– Crafted customized dashboards tailored to distinct user roles—students, educators, and administrators—using React.js and Vite
– Enhanced navigation with seamless route transitions using React Router, minimizing user flow interruptions by 30%
– Architected modular REST APIs with Express.js, cutting backend latency by 45% through optimized MongoDB interaction

Projects

AI-Powered Crater Detection System — *React.js, Node.js, MongoDB, Express.js, Python*　　**Jul 2024 – Aug 2024**

– Constructed and launched a full-stack AI platform for automated crater/boulder detection in OHRC imagery with 91% accuracy
– Orchestrated backend architecture to manage 10K+ weekly inference requests with MongoDB metadata storage
– Implemented CI/CD pipelines via GitHub Actions and Render, ensuring 99.5% uptime and sub-200ms latency

Traffic Safety Analysis Dashboard — *React.js, JavaScript, CARLA Simulator, Tailwind CSS*　　**Sep 2024 – Jan 2025**

– Engineered an interactive dashboard for real-time visualization of autonomous traffic simulations via CARLA
– Integrated WebSocket for real-time metric updates and improved responsiveness across devices by 35%
– Boosted rendering speed by 60% through front-end optimizations; deployed on Vercel with continuous delivery

Educational Dashboard for Diksha Foundation — *React.js, Node.js, MongoDB, Express.js*　　**Jun 2025 – Jul 2025**

– Eliminated departmental data silos by unifying 20+ inconsistent Excel sources into a structured digital backend
– Built an all-in-one student analytics portal tracking academic, behavioral, and growth indicators for 2,800+ individuals
– Designed a MERN-based platform supporting differentiated access levels across three user groups: learners, instructors, and mentors
– Prepared secure, reusable REST endpoints to manage records and ensure consistent access across multiple platforms

Technical Skills

– **Programming Languages:** C++, C, Java, Python, JavaScript
– **Full-Stack Technologies:** HTML5, CSS3, React.js, Node.js, Express.js, Tailwind CSS, Bootstrap, RESTful APIs, WebSocket, Authentication, Responsive Design
– **Databases & Cloud:** MongoDB, MySQL, Oracle Database, AWS, Vercel, Database Design, Query Optimization
– **Tools & Specialized:** Git, GitHub, Postman, CARLA Simulator, DOM Manipulation