Khushiram Meena

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Education

Indian Institutes of Information Technology (IIIT), Nagpur

Dec 2020 - May 2024

B.Tech in Computer Science and Engineering

Experience

Software Engineer at Ati Motors

Jun 2024 - Present

- Engineered real-time Teleoperation (TeleOps) for AMRs using **WebRTC**, achieving **40**%+ reduction in latency(60–100 ms) for video streaming and remote control.
- Integrated real-time 2D visualization of 3D LiDAR point cloud data into TeleOps, resolved frontend rendering issues, and enhancing situational awareness(safety) for remote operators.
- Developed a secure, real-time Remote Terminal for AMR diagnostics and control using **WebSockets**, with integrated two-factor authentication via Google Authenticator (**TOTP**) to prevent unauthorized access.
- Revamped the internal Map Editor by migrating **API** state management to **Zustand** and building advanced UI tool adaptive Grid View and a Ruler for precise spatial editing, improving editor performance and usability by **50**%.
- Implemented a traffic-light plugin for AMRs that triggered real-time visual indicators (traffic lights), improving fleet coordination and reducing inter-AMR conflicts by 95%, enhancing on-site human awareness and safety.
- Built an automated escalation workflow leveraging **PostgreSQL** and **Grafana** for shift-based ticket routing, reducing AMR response efficiency by **50**%.
- Orchestrated containerized workloads on **Kubernetes** in an air-gapped environment to ensure high availability, improve system reliability, and streamline automated deployments.
- Created responsive, component-based UIs with **React**, **Typescript** and **MUI**, enhancing user experience and supporting real-time features in AMR control systems.
- Collaborated on backend API integration using **FastAPI**, **WebSockets**, and **Redis**, enabling real-time data flow, efficient session handling, and seamless communication across distributed AMR systems.

Software Engineer Intern at Ati Motors

Mar 2024 – Jun 2024

- Reduced backend APIs response time by 45% and improved Fleet Manager stability through monitoring and profiling using Amazon CodeGuru, Prometheus, and Coroot.
- Automated health-monitoring pipelines for the Fleet Manager, collecting runtime metrics, logging operational data, and delivering real-time Slack alerts to accelerate issue resolution by 50%.

Full Stack Developer Intern at Primathink Technologies Pvt. Ltd.

Nov 2022 - Feb 2023

Developed a full-stack, responsive Invoice Management System using HTML, CSS, JS, Bootstrap, PHP, and MySQL, improving cross-device usability and reducing manual billing time by 30% for retail workflows.

Projects

Online-Test-Conducting-System [Github] [React, Material UI, Node.Js, MongoDB]

Jun 2024

- Designed a full-stack Online Test Conducting System using React, Node.js, and MongoDB, enabling role-based access for admins, teachers, and students. Improved test management efficiency by 40% via responsive dashboards.
- Job Search Portal [Backend] [Frontend] [React, TypeScript, Python, FastAPI, PostgreSQL]
 - Deployed a full-stack job portal with an admin-controlled dashboard, **3**+ job filters, and real-time auto-post integration with Telegram—enhancing user engagement by **40**%. Enabled rich content rendering using Markdown format.

Relevant Coursework

Computer Science: C/C++, Data Structures and Algorithms, Object Oriented Programming, Database Management System (DBMS), SQL, Operating System

Technical Skills

• Languages : C, C++, SQL, Python, Java, JavaScript

Frontend : React.js, TypeScript, Next.js, Zustand, Tailwind CSS, Material UI, Bootstrap
Backend : FastAPI, Node.js, Express.js, Spring Boot, Microservices, WebSockets, Redis

• Databases : MongoDB, PostgreSQL, MySQL

• DevOps & Infra : Docker, Kubernetes, EC2 instance, S3 Bucket, Helm, Amazon CodeGuru, Coroot, Prometheus

• Developer Tools : GitHub, VS Code, Eclipse IDE, Google Colab, Postman

Coding Profiles

Leetcode GeeksforGeeks CodeChef