Sri Charan B J

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EDUCATION

National Engineering College   August 2019 – May 2023
B.E Computer Science Engineering   *Kovilpatti, Tamilnadu*

TECHNICAL SKILLS

Languages: JavaScript, Typescript, C++, Java
Frameworks and Technologies : Node JS, Nest JS, Express.js, RESTful APIs, GraphQL, BullMQ, Websockets
Databases: MongoDB, MySql, Redis
Deployment Tools: Digital Ocean, PM2, Nginx
Other Skills: Data Structures and Algorithms, Microservices Architecture, Code Optimization

WORK EXPERIENCE

Vlinder Labs   July 2023 – Present
Software Engineer   *Bengaluru*

- Led backend development for multi-system production platforms handling secure workflows, payment integrations, and tenant-scoped access control.
- Designed and implemented a secure multi-tenant certification management platform supporting employer–employee workflows with strict organization-level data isolation.
- Built role-based access control (RBAC) enabling fine-grained authorization across Employer, Employee, and Admin roles.
- Engineered end-to-end application lifecycle management including submission, approval workflows, certificate generation, and status tracking.
- Developed and optimized payment microservices integrating 5+ gateways with idempotent request handling and secure webhook validation, reducing payment latency from 4s → 1s.
- Implemented load balancing using PM2 and Nginx, Improved request throughput by 40% under peak load, supporting 15,000+ concurrent users during high-traffic events.
- Designed background processing using cron scheduling, BullMQ queues, and MQTT-based event handling for scalable async workflows.
- Modeled and optimized database schemas for multi-project environments aligning with complex domain requirements.

                                                                  August 2022 – June 2023
Internship   *Bengaluru*

- Developed and integrated a secure user authentication and authorization system, ensuring controlled access to application features and data.
- Integrated MongoDB database with NodeJS applications, optimizing data storage and retrieval operations for improved efficiency, resulting in a 30% improvement in data access speed.

PROJECTS

GEMS — Sales - Distribution Platform

- Architected and developed scalable backend services using NestJS, MongoDB, and Redis, enabling admins to manage costume themes, committees, and users.
- Implemented an adapter layer between Sales and Distribution systems, enabling decoupled communication and consistent state synchronization across platforms.
- Designed a Redis + BullMQ–based token queue system to ensure fair, low-latency costume distribution under high concurrency.
- Implemented real-time distribution workflows with status tracking, image capture, and audit logging for operational accountability.
- Provided onsite production support in Trinidad & Tobago, resolving live distribution bottlenecks and improving large-scale event handling.

Real-Time Live GPS Tracking System

- Built a TCP-based ingestion server to receive continuous GPS data (every 5 seconds per device).
- Designed an event-driven pipeline by pushing decoded coordinates to Redis and publishing via Redis Pub/Sub.
- Implemented subscription handling in the core application using GraphQL Subscriptions and WebSockets to stream real-time location updates to clients.