HARSH SHAH

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Professional Summary

B.Tech Computer Engineering student graduating in 2026 with approximately 10 months of hands-on industry experience contributing to backend and full-stack software development. Experienced in building and validating REST APIs, database-driven services, and real-time application features, with consistent involvement across requirement analysis, implementation, debugging, testing, and iteration within the SDLC. Demonstrated ability to work in production-style environments and seeking an entry-level Software Engineer role focused on building reliable, well-engineered systems..

EXPERIENCE

AB enterprise | Software Engineer Intern *Jan 2025 – June 2025*

- Designed and built distributed backend services using Node.js and Python, capable of supporting 50K+ daily API requests with 99.9% uptime.
- Optimized database queries and introduced Redis caching, improving system performance by 35%.
- Developed RESTful APIs and applied object-oriented design principles for scalable, maintainable codebases.
- Implemented OAuth 2.0, JWT, and RBAC to secure multi-tier systems.
- Built CI/CD pipelines with Docker and GitHub Architected Actions, enabling zero-downtime deployments.
- Collaborated cross-functionally in an Agile/Scrum environment, contributing to design reviews and production issue resolution.

Ashtavinayak Automobile | Fullstack Development *Aug 2024 – Nov 2024*

- Designed and delivered a cloud-based inventory web platform using Node.js, Angular, MongoDB.
- Built real-time features using WebSockets, improving operational efficiency by 25%.
- Developed scalable microservices and APIs capable of processing 30K+ transactions/day. Containerized applications with Docker and automated deployments via CI/CD pipelines.

PROJECT.

Citadel Flow | Payment Orchestration & Intelligence Platform

Node.js, Express, PostgreSQL, WebSockets, Docker, REST APIs, Event-Driven Architecture

- Designed and implemented a state-machine driven transaction orchestration layer modeling real card lifecycles (authorization, retries, settlement) with deterministic transitions and fault tolerance under partial failures.
- Implemented issuer-aware failure classification and adaptive retry logic, recovering transient declines and improving simulated authorization success by ~20% under network and timeout conditions.
- Built a real-time payment observability pipeline (WebSockets + metrics aggregation) exposing live transaction states, latency (p95), and failure distributions for operational decision-making.
- Designed a containerized, production-aligned system (Node.js, PostgreSQL, Docker) with background settlement workers, idempotent APIs, and extensible adapters for future gateway integrations (e.g., Razorpay sandbox).

MahaKavach | Real-Time Crowd & Safety Intelligence Platform (Mumbai Suburban Railway)

FastAPI, Python, WebSockets, React, JavaScript, YOLOv11 (Ultralytics), Docker, REST APIs, Event-Driven Architecture

- Engineered a real-time data streaming system using FastAPI and WebSockets, delivering crowd updates every 5 seconds with <300 ms end-to-end latency.
- Implemented data aggregation and trend analysis logic by processing rolling commuter inputs per coach, improving signal accuracy and reducing noise.
- Integrated AI-based crowd detection using YOLOv11, enabling asynchronous image analysis without blocking real-time system updates.
- Deployed containerized frontend and backend services using Docker, enabling reproducible local setups and faster development iterations.SKILLS

Programming Languages: Python, JavaScript, Java, C++

Backend & Web: Node.js, REST APIs, SQL, PostgreSQL, MongoDB, WebSockets, REST API

Frontend: React, Angular, HTML, CSS, Tailwind CSS

Tools & DevOps: Git, Docker, GitHub Actions, CI/CD

Concepts: Data Structures, OOP, Debugging, SDLC, Agile/Scrum

AI/ML Exposure: Computer Vision (YOLO), ML Inference

EDUCATION

B.Tech in Computer Engineering | Amity University Mumbai *Expected Graduation: July 2026*

Higher Secondary **HSC – 91.67%** | Secondary School | **CBSE – 82.40%**