M S Rahman

AI Software Engineer | Backend & Full-Stack Engineering | Applied ML

+91 9342901314 | msr1707rich@gmail.com | linkedin.com/in/rahmanms2005 | github.com/MSR-3117

Education

B.E. Computer Science
(Cyber Security Specialization)
PSNA College of Engineering & Technology
Expected Graduation: 2027
CGPA: 8.2 / 10

Technical Skills

AI / ML
LLM Integration (OpenAI, Anthropic), Prompt Engineering, Agentic Pipelines, YOLOv8, ONNX Runtime, LSTM, Isolation Forest, Edge AI, Computer Vision (OpenCV)

Languages
Python, Java, JavaScript, TypeScript, C#
Familiar: SQL, Dart, C++

Backend
Spring Boot, Node.js, Express.js, REST APIs, JWT Auth, .NET Fundamentals

Frontend
React.js, Vite, Flutter, HTML5, CSS3, PWA

Databases
MySQL, PostgreSQL, MongoDB, Firebase

Cloud & DevOps
Docker, GitHub Actions, Linux, Vercel

Core CS
DSA, OOP, DBMS, Operating Systems, System Design, SDLC, Agile

Certifications

CEH — EC-Council (In Progress)
Java Programming Masterclass — Udemy, 2024
SQL for Developers — LinkedIn, 2024

Open Source

10+ public repositories spanning AI, full-stack web, and IoT systems
github.com/MSR-3117

Interests

MLOps, RAG Pipelines, LangChain Agents, Cloud-Native AI (AWS SageMaker / Lambda), Scalable System Design

Professional Summary

AI Software Engineer with production experience spanning end-to-end agentic AI systems, LLM-integrated backend pipelines, real-time computer vision inference, and full-stack web platforms. Sole backend engineer at Dot Com Infoway for an autonomous GPT-4-powered social media agent, cutting pipeline latency by 86% and redundant regeneration calls by 30–50%. Comfortable owning the full engineering lifecycle — from database schema and REST API design to React frontends, embedded ML deployment, and cloud infrastructure — using Python, Java, JavaScript, Spring Boot, Node.js, and ONNX Runtime.

Experience

AI Engineering Intern — Dot Com Infoway, Madurai *Jun 2024 – Aug 2024*

- Sole backend engineer for a production autonomous AI social media agent — a multi-stage agentic pipeline turning a company URL into brand-aligned content published end-to-end across platforms.
- Redesigned the web scraping & brand-extraction pipeline with asynchronous processing, cutting average retrieval time from 180s to 25s (86% faster), auto-identifying color palettes, typography, tone, and themes as context for a GPT-4 prompt-engineering pipeline.
- Architected content-layer separation for AI image generation with editable text overlays, reducing redundant regeneration API calls by 30–50%, and integrated multi-platform publishing APIs (Meta, LinkedIn) to complete the end-to-end agentic loop.
- Built a database-backed workflow persistence layer (drafts, checkpoints, generation history), decoupling generation from control logic and improving maintainability.

Cybersecurity Intern — Cypherdote, Madurai *Sep 2024 – Nov 2024*

- Conducted vulnerability scanning across client networks, documenting critical CVEs with remediation recommendations adopted by the security team.
- Analyzed real-world attack vectors in live Linux environments; contributed to threat assessment reports informing client security posture.

Projects

HarmonyAuraOS — Predictive Industrial Safety Platform *github.com/MSR-3117/Harmony_AuraOS*

- Designed and trained an LSTM temporal model for multi-modal industrial risk prediction across heterogeneous sensor streams (HR, HRV, IMU, vibration, gas, thermal), deployed on ESP32 with a 3-state classifier (SAFE/WARNING/CRITICAL) for sub-100ms interlock latency.
- Built role-based React.js dashboards (workers, supervisors, managers) with real-time operational visibility and incident escalation, backed by Firebase sync — eliminating cloud dependency for time-critical decisions.
- Stack: Python, LSTM, ESP32, IoT Sensors, Firebase, React.js

DriveOS — Intelligent Vehicle Anomaly Detection *github.com/MSR-3117*

- Built a real-time, edge-based anomaly detection platform for connected vehicles, engineering a low-latency inference pipeline (YOLOv8 + ONNX Runtime) at 30–50ms latency and 85–90% detection accuracy on edge hardware.
- Reduced false positives via temporal persistence validation logic and built React dashboards with real-time Firebase sync for live hazard sharing across distributed nodes.
- Stack: React.js, Python, YOLOv8, ONNX Runtime, Firebase

Daily Planner PWA — Task Management & Analytics Platform *planner.rahmanms.studio*

- Built a full-stack PWA for task management, analytics, and personalized settings with real-time sync; designed RESTful APIs for task operations and metrics aggregation secured with JWT-based authentication.
- Built a fully responsive React.js interface, deployed on Vercel with persistent cloud database integration for scalable multi-device access.
- Stack: React.js, Node.js, Express.js, SQL, JWT, Vercel