M S Gulshan

Senior AI Software Engineer

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Summary

AI engineer who leads the AI team at Vrtta Green Solutions, building LLM document processing and search for carbon footprint reports and working directly with clients. Outside work, built and published AnswerGate, an open-source test tool for AI assistants on PyPI, and Exsy, a money-tracking app.

Experience

Vrtta Green Solutions — Montreal, Canada (Remote)
Senior AI Software Engineer (promoted from AI Software Developer) — Sep 2025 – Present

- Lead the AI team's planning and development, and manage client projects through to release.
- Built the pipeline behind the company's product carbon footprint tool: it reads multi-page bills of materials and produces the emission reports that were previously prepared by hand.
- Fine-tuned open-source LLMs (LoRA, QLoRA) to extract and classify materials, reaching 98.7% parsing accuracy.
- Built hybrid search in Qdrant (vectors plus metadata filters) that matches each material against over 1 million LCA records.
- Cut retrieval latency by 40% with token budgets and NDJSON/SSE streaming from the Flask backend.

Mu Sigma — Bengaluru, India
Trainee Decision Scientist — Jun 2025 – Sep 2025

- Built data pipelines and analytical models for enterprise clients and presented the findings.

EY Global (through Edunet) — Remote
MERN Stack Developer Intern — Feb 2025 – Mar 2025

- Developed MERN stack web applications that supported more than 100 concurrent users.

Projects

AnswerGate | Python, Ollama, Qdrant, GitHub Actions | github.com/gulshanmsgit/answergate — 2026

- Open-source CLI and GitHub Action, published on PyPI, that runs test questions against an AI assistant and fails the pull request when answers get worse.
- Grades answers with a local LLM through Ollama and checks for leaked personal data, prompt injection and off-topic answers.
- Caught 36 of 42 planted faults across 1,070 test questions with no false alarms, and flagged a chunk-size change that lowered correctness on a FastAPI + Qdrant assistant.

Exsy – family money book | JavaScript, Firebase, PWA | github.com/gulshanmsgit/Exsy- — 2026

- Installable web app for tracking a family's money: separate books per person, cash, bank and card accounts, loans, and EMIs with GST.
- Runs a chit fund: monthly collections, overdue list, a random draw among members yet to win, and PDF statements shared on WhatsApp.
- Fills in an entry from a pasted bank SMS or UPI message; works offline, with Google sign-in and private sync through Firestore.

Adaptive Traffic Signaling, with Bangalore Traffic Police | Python, LSTM, SQL — 2024 – 2025

- Trained an LSTM on live traffic sensor data to adjust signal timing; congestion fell 30% in simulation.

Skills

AI and LLMs: LLM fine-tuning (LoRA, QLoRA), Ollama, RAG, Qdrant, prompt engineering, LLM evaluation

Backend: Python, Flask, FastAPI, SQL, REST APIs, async pipelines, server-sent events

Frontend and tools: React, JavaScript, Firebase, MongoDB, Git, GitHub Actions, pytest

Education

Global Academy of Technology — Bengaluru, India
B.E. in Information Science and Engineering, CGPA 9.73/10 — 2021 – 2025

Achievements

- Gold Medalist, Class of 2025, Global Academy of Technology
- National Rank 3, International Science Talent Examination, 2019