

Pushp Gupta

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Skills

Languages: Python, C++, JavaScript, SQL

Backend & Systems: REST APIs, FastAPI, Express.js, WebSockets, Docker, Kubernetes, AWS, GCP

Databases: PostgreSQL, MongoDB, Redis

Tools & Practices: Git, Linux, OOP, DSA, System Design, Postman, pytest

Experience

Trainee Software Engineer Amnet Digital March 2026 – Present

- Designed and developed a metadata registry service for an internal AI-powered data integration platform, enabling dynamic discovery of supported data connectors and their configuration schemas.
- Built a multi-agent LLM workflow to generate natural-language explanations and actionable recommendations from structured business insights.
- Designed and implemented an automated monitoring service using AWS Glue and Amazon SNS to detect upstream data pipeline failures and send real-time alerts with diagnostic context.

Projects

Inkr - React, Express.js, MongoDB, WebSockets, HTML5 Canvas May 2025 – June 2025

- Designed and developed a real-time collaborative whiteboard using **WebSockets**, supporting concurrent multi-user editing with session management and synchronized shared canvas state.
- Improved rendering performance by **batching canvas updates** and **debouncing WebSocket events**, reducing unnecessary network traffic and visual latency during continuous drawing.
- Profiled and optimized the client-side rendering pipeline, eliminating key bottlenecks and reducing dropped frames by **60%** under heavy concurrent usage.

Multi-Modal Document Intelligence (RAG-Based QA System) - Python, OCR, FAISS, LangChain, LLMs, Streamlit Dec 2025 – Jan 2026

- Designed and developed a **Retrieval-Augmented Generation (RAG)** pipeline that ingests text, tables, and scanned documents using **OCR**, enabling semantic search across heterogeneous document formats.
- Indexed approximately **10K document chunks** in **FAISS** and optimized chunking and embedding strategies to improve retrieval relevance while maintaining low query latency.
- Developed a **Streamlit** interface that surfaces model confidence and flags low-confidence responses, enabling users to identify answers requiring manual verification.

Achievements

- **SOPRA STERIA** Top 6 National Finalist out of 518 teams (3,900+ students, 182 universities) — Sopra Steria International Student Challenge.
- **Leetcode** 450+ problems solved on LeetCode (rating 1600+), focused on Dynamic Programming, Graphs, Binary Search, and Sliding Window patterns.
- **ConverseE+** Led ConverseE+ Student Club as President

Education

Lovely Professional University (LPU) 2022- 2026

B.Tech in Computer Science and Engineering **CGPA** - 7.77