Raj Pratap Singh Gurjar

Undergraduate Sophomore

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EDUCATION

Indian Institute of Technology, Patna, BTech in Mathematics and Computing
2024 – 2028 (Expected)

- **Coursework:** Introduction To Machine Learning, Design and Analysis of Algorithms, Data Structures, Database Management Systems, Computer Architecture and Organization.

CPI : 8.14/10.0

WORK EXPERIENCE

SDE Intern, *Nurtureme.ai, Remote – Palo Alto, CA(USA)*
May 2025 – Oct 2025

- Built an **AI-integrated healthcare portal** to digitize and automate patient intake, supporting **7+ standardized clinical questionnaires** across ENT, sleep, dizziness, hearing, and sinus care.
- Created a **clinical intelligence and scoring engine** implementing validated formulas to compute **severity indices, symptom clusters, and red-flag indicators**, reducing manual screening effort by ̃**40%**.
- Implemented a **medical chatbot using LLaMA @ OpenRouter**, conditioned on real-time scoring outputs to **adapt conversations, summarize symptoms, and guide patients** to appropriate clinical pathways.

AREAS OF EXPERTISE

- Python
- C++
- SQL
- JavaScript
- React.js
- Node.js
- Express.js
- FastAPI / REST APIs
- RAG Systems
- Vector DBs (Pinecone)
- Semantic Search
- Text Embeddings
- Machine Learning
- Deep Learning (PyTorch)
- NLP
- LLM Applications
- Git / Version Control
- Docker
- Cloud (AWS / GCP)
- System Design

PROJECTS

RaGGit — Issue Intelligence Platform GitHub

- Constructed an end-to-end **AI issue intelligence platform** by ingesting and normalizing **2,400+ real GitHub issues/PRs** into a hybrid PostgreSQL + Pinecone system, enabling **large-scale semantic retrieval** over multi-repo data.
- Designed a **RAG pipeline** using **dense embeddings + vector search + Mistral LLM** to deliver grounded technical Q&A, achieving **sub-second semantic search** and context-aware responses across thousands of documents.
- Built an **LLM-powered triage agent** that automatically **classifies issues, assigns priority, detects duplicates, and recommends actions**, generating structured decision outputs in **<2s per issue** for AI-driven workflow automation.

ResumeAgent - Serverless Resume Optimizer GitHub | Website

- Designed a highly scalable **serverless architecture** using **AWS Lambda** and **API Gateway** to process concurrent resume parsing requests with auto-scaling capabilities during burst traffic.
- Implemented a cost-efficient validation layer that **filters ineligible requests** before API processing, reducing cloud inference costs by ̃30% and improved system throughput.

Trippr - AI Travel Planner GitHub | Website

- Developed travel planning engine using **few-shot prompting**, standardizing LLM outputs into structured format, reducing code complexity by 25%.
- Optimized LLM-generated routes by implementing a **graph-based heuristic (TSP)**, reducing total travel distance by **25–40% compared to naive sequential ordering** of geospatial coordinates.

ACCOMPLISHMENTS

- **Research Consultant**, **WorldQuant** – Awarded **Gold Certificate**.
- Completed the **Google Upskilling Launchpad Program** (2025).
- **1.8K/45K+** in **IICPC Codefest 2025** | Solved **400+ DSA problems** across different platforms | **Codeforces** - (1328).
- **99.7 percentile** in **JEE Mains'24** | **96.8% percentile** in **JEE Advanced'24** | **AIR 32** in **AIME 2024**.