Parv Tiwari
B.Tech Computer Science | SGSITS Indore | **CGPA: 9.13**
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Computer Science undergraduate with strong foundations in Machine Learning, Data Structures, and Algorithmic Optimization. Experienced in developing scalable backend systems, with a focus on experimental validation and performance evaluation. Demonstrated strong mathematical reasoning and complexity analysis through extensive problem solving. Interested in large-scale intelligent systems and applied AI.

Academic Details

- B.Tech Computer Science — Shri G. S. Institute of Technology and Science, Indore (RGPV) | CGPA: 9.13 | 2027
- Class XII — Choithram School (CBSE) | 93.4% | 2022
- Class X — Choithram School (CBSE) | 84.8% | 2020

Scholastic Achievements

- **JEE Main 2023:** AIR **33777**, Top **3%** among 1.1M+ candidates nationwide
- **2nd Place**, Tech Track Coding Competition – CodeFoster
- **NPTEL Certified** in **Artificial Intelligence: Search Methods for Problem Solving** (IIT Madras)
- **CodeChef Certified in Deep Learning & AI**
- **Top 12% qualifier**, ET GenAI Hackathon selected among 6,594 teams out of 54,618 registrations nationwide

Technical Projects

NewsMind AI — AI-Powered Personalized Business News Platform

- Developed a full-stack Generative AI platform delivering personalized news using LLM-based summarization and user preference modeling
- Engineered an NLP pipeline for topic classification, named entity recognition, and relevance scoring to surface high-signal news content
- Integrated Large Language Model APIs to generate concise, context-aware article summaries tailored to individual user interests
- Designed RESTful backend APIs and a responsive Next.js frontend supporting end-to-end content discovery and delivery
- Submitted as a hackathon project with full deliverables including architecture documentation and system design
- **Tech:** Python, LLM, GenAI, NLP, React.js, Node.js, Express.js, REST APIs

Gold Price Predictor

- Designed and evaluated an LSTM-based deep learning model for multivariate time-series forecasting
- Conducted systematic experimentation on sequence length and hyperparameters to analyze model generalization
- Applied train-test validation methodology and monitored overfitting using EarlyStopping
- Compared model performance against baseline approaches
- **Tech**: Python, TensorFlow, Keras, LSTM, Scikit-learn, Pandas

DocuSearch – AI Document Q&A System

- Built a document QA application allowing users to upload PDF, DOCX, and TXT files and query content through a chat interface
- Implemented a document processing and retrieval pipeline using text chunking and keyword-based relevance scoring
- Integrated Groq API with LLaMA-3.3-70B to generate context-aware answers from retrieved document sections
- Developed an interactive Streamlit UI supporting document upload, conversational queries, and source context viewing
- **Tech:** Python, Streamlit, Groq API, LLaMA-3, NLP, Document Processing

MetroMart – Full-Stack Inventory & Sales Platform

- Designed and developed a backend application for inventory and order workflows using REST APIs and structured database design
- Designed normalized PostgreSQL schema (10+ tables) ensuring **ACID compliance and data consistency**
- Improved system performance through query optimization, indexing strategies, and efficient database schema design
- Implemented RESTful APIs with structured error handling and input validation
- Ensured reliability under concurrent operations using transactions and stored procedures
- **Tech:** Node.js, Express.js, PostgreSQL, SQL, REST APIs, JavaScript

Technical Skills

- **Programming Languages:** Python, C++, Java, C, JavaScript, SQL
- **Core Computer Science:** Data Structures & Algorithms, Operating Systems, DBMS, OOP, Time & Space Complexity Analysis
- **Backend & Web Development:** REST APIs, Node.js, Express.js, React.js, Redux, Next.js, HTML5, CSS3, Tailwind CSS
- **Software Engineering:** System Design, Debugging, Performance Optimization, Code Reviews, Technical Documentation
- **Databases:** PostgreSQL, MySQL
- **Additional Exposure:** Machine Learning, Data Analysis, NLP, Neural Networks
- **Soft Skills:** Problem Solving | Growth Mindset | Team Collaboration | Time Management | Technical Communication | Leadership

Positions of Responsibility

Coordinator at CodeFoster **May '25 – Present**

- Led technical workshops and mentorship sessions for 50+ students, participated in code review sessions and brainstorming
- Collaborated cross-functionally with peers on event planning, content, and driving community engagement

Extracurricular Activities

- **Basketball:** Team player with strong coordination and strategic thinking
- **Photography:** Visual storytelling and creative exploration
- **Music (Synthesizer):** Composition and experimentation