

# Riya Singh

 Riya-Singh-cell |  riya-singh-77a658295 |  LeetCode |  riya160305@gmail.com |  +91 7796220083  
 Portfolio

## SUMMARY

---

Computer Science undergraduate specializing in Machine Learning, Computer Vision, NLP, and Generative AI, focused on building real-world intelligent systems. Experienced in developing end-to-end AI applications including LLM-powered platforms, RAG pipelines, and real-time face recognition systems. Proficient in designing and deploying scalable full-stack AI solutions using FastAPI, React, Streamlit, and AWS. Strong foundation in Data Structures, Algorithms, and core mathematical concepts with a focus on practical AI system design.

## WORK EXPERIENCE

---

### AI/ML Intern - Labmentix

Jun 2025 – Sep 2025

- Engineered and modeled 50k+ structured records, improving predictive performance by 12% through feature optimization and hyperparameter tuning.
- Designed complete ML workflow including preprocessing, scaling, validation, and model benchmarking across multiple algorithms.
- Implemented stratified validation, performance tracking (precision, recall, F1-score), and confusion matrix evaluation.
- Structured reproducible experimentation pipelines ensuring seamless model deployment.

### Associate - Next Tech Lab (McCarthy Lab), SRM AP

Apr 2025 – Jan 2026

- Contributed to ML, NLP, and Generative AI research discussions focusing on scalable AI system architectures.
- Assisted in experimentation, optimization strategies, and evaluation of model generalization techniques.
- Collaborated in academic technical reviews and solution prototyping sessions.

## PROJECTS

---

### PrepGenie - AI Study Assistant Platform

[GitHub](#)

*React, FastAPI, LLMs, Groq API*

- Built an AI-powered learning platform integrating study planning, notes generation, and mock test creation.
- Developed personalized study plans based on user inputs such as syllabus, time, and learning level.
- Implemented LLM-based modules for generating structured notes and exam-focused practice questions.
- Designed scalable full-stack architecture with interactive UI and real-time AI responses.

### AI Face Recognition Attendance System

[GitHub](#)

*Python, OpenCV, DeepFace, Streamlit, SQLite*

- Built a real-time face recognition system using deep learning embeddings for automated attendance tracking.
- Implemented multi-person detection and identity matching using OpenCV and DeepFace.
- Developed an interactive dashboard using Streamlit with live webcam feed and attendance updates.

### Medical Report Analyzer - Hybrid RAG System

[GitHub](#)

*Python, Streamlit, FAISS, SentenceTransformers*

- Built a hybrid RAG pipeline using FAISS for semantic retrieval and rule-based logic for structured medical analysis.
- Implemented PDF parsing, text chunking, embedding generation, and similarity-based retrieval of relevant report sections.
- Designed an interactive web interface using Streamlit for real-time report analysis and visualization.

### AI Resume Matcher - NLP Application

[GitHub](#)

*React, FastAPI, NLP, SentenceTransformers*

- Built semantic similarity engine for resume-job matching using embeddings.
- Developed backend for parsing, vector generation, and ranking candidates.
- Implemented skill-gap analysis for improved recruitment insights.

## EDUCATION

---

2023 – Present B.Tech in Computer Science & Engineering at **SRM University, AP** **CGPA: 9.23 / 10.0**

**Relevant Coursework:** Data Structures & Algorithms, DBMS, Operating Systems, Machine Learning, Probability & Statistics, Computer Networks

**Academic Distinction:** Top 10% of cohort; consistent high academic performance.

## TECHNICAL SKILLS

---

- **Languages:** Python, Java, JavaScript, SQL
- **Machine Learning:** Scikit-learn, Feature Engineering, Model Evaluation, Classification
- **AI & Deep Learning:** TensorFlow, Keras, CNNs, Neural Networks, OpenCV, DeepFace, RAG Systems, Embeddings, Semantic Search, LLM Integration
- **Frameworks & Tools:** FastAPI, Flask, Streamlit, React, LangChain, SQLite, FAISS, Power BI, AWS (EC2, S3), Git, GitHub