Mini Project: AI-Based Resume Analyzer

1. Project Title

AI-Based Resume Analyzer

2. Objective

To develop a web-based application that allows users to upload a resume and a job description, then uses NLP techniques to analyze how well the resume matches the job description, showing match percentage, missing skills, and tips.

3. Technology Stack

Frontend: HTML, Bootstrap

Backend: Python (Flask)

NLP: NLTK, Scikit-learn (TF-IDF, Cosine Similarity)

Deployment: GitHub, Render

4. Features

- Upload PDF resume and job description text

- Extract and clean text using NLTK

- Compute match percentage using TF-IDF and Cosine Similarity

- Show missing/recommended keywords

- Provide tips to improve resume

- Mobile-responsive web design

5. Architecture

1. User uploads resume (PDF) and job description (text)

2. Backend extracts and processes text using NLTK

3. TF-IDF + Cosine Similarity used for match percentage

4. Result page shows analysis: match %, missing skills, tips

6. Sample Output

Match Percentage: 72.5%

Missing Skills: SQL, Docker, APIs, React

Tips: Consider adding these missing skills to improve your match.

7. Deployment Links

GitHub: https://github.com/manoj-mukkamula/AI-Resume-Analyzer

Live Demo: [Your Render URL]