CVALIGN

Problem Statement :

In today's competitive job market, companies receive hundreds of CVs for each role, yet hiring decisions remain heavily reliant on manual screening. This process is inefficient, inconsistent, and prone to human bias. To streamline candidate evaluation and improve hiring quality, develop a CV evaluator website that uses a RAG (Retrieval-Augmented Generation) LLM model to assess CVs against specific job role descriptions provided by companies.

The system should enable companies to upload job role descriptions—defining required skills, preferred experiences, and traits—into a centralized platform. Job seekers' CVs are then automatically evaluated that assigns a relevance score and generates personalized feedback, such as strengths, weaknesses, and role-fit explanations. The result is a structured, explainable report that helps recruiters quickly identify the best candidates.

Goals:

- A web form where companies enter role-specific requirements and preferred qualifications.
- Role-Based Access Control
  - Different permissions for recruiters, hiring managers, and admins.
- Extracts and structures content from uploaded CVs (PDF/DOCX).
- Stores all the upload CVs in a cloud storage in a seamless manner
- Uses a RAG model to:
  - Score each CV based on relevance to the job description.
  - Generate textual feedback explaining strengths and weaknesses.
- A web dashboard showing:
  - Ranked candidates with scores.
  - Detailed feedback per CV.
  - Filtering and comparison features.

TechStack/Frameworks :

- Machine Learning : Python, with PyTorch, Hugging Face Transformers, Langchain and Langgraph, PIneCone or FAISS for vector database storage
- Web : HTML/CSS + ReactJs, FastApi , any cloud storage(like Cloudinary)