

AI Resume Evaluation & Recruitment Management System

Project Overview

A dual-portal AI-powered system that evaluates resumes against job descriptions, provides transparent feedback to job seekers, and enables companies to rank and filter candidates objectively.

User Roles

User (Job Seeker): Upload resumes, test resume vs JD, apply for jobs, track rank and status.
Admin (Company/HR): Post jobs, view ranked candidates, filter top applicants, enable bias-free mode.

User Journey A – Resume Analyzer

Users upload multiple resume versions and paste a job description to get instant feedback such as matching score, missing skills, improvement actions, and resume version comparison.

Resume Versioning

Users can upload multiple resume versions and compare their performance against the same job description to identify which resume is most effective.

User Journey B – Job Application

Users browse jobs, select a resume version, apply, and receive rank, status, and job-specific skill gaps.

Application Status Logic

Top 10%: Shortlisted
Top 30%: Under Review
Below 30%: Not Selected

Admin Portal Features

Admins can post jobs, view ranked candidates, filter top N applicants, and enable anonymized bias-free hiring views.

AI Logic

Resume parsing, skill extraction using predefined skill lists, matching score calculation, and missing skill detection.

Database Design

Users Table, Resume Versions Table, Jobs Table, Applications Table with scores, ranks, and status.

Technology Stack

Frontend: HTML, CSS, JavaScript

Backend: Flask (Python)

Database: SQLite

AI/NLP: pdfplumber, spaCy, scikit-learn

Build Order

Resume parsing, JD input, skill extraction, matching score, gap analysis, resume versioning, job posting, application flow, ranking, admin dashboard.

Project Strengths

Transparent evaluation, resume optimization, objective ranking, bias-free hiring, actionable feedback.