

## Project Description

This project is an AI-based Resume Screening and Candidate Recommendation System designed to assist recruiters in evaluating job applicants efficiently. The system allows users to upload multiple PDF resumes and compare them against a job description using artificial intelligence. The goal is to reduce manual effort, improve consistency, and enhance decision-making in the hiring process.

## Problem Statement

Recruiters often need to review large volumes of resumes manually, which is time-consuming and prone to inconsistency. Important candidates may be overlooked, and evaluations may vary depending on the reviewer.

## Proposed Solution

Our system provides a web-based interface where users can upload resumes and input a job description. The system processes resumes using AI and generates structured evaluations, including match scores and rankings.

## System Features

- Upload multiple PDF resumes
- AI-generated match score (0–100)
- Candidate ranking system
- Skills analysis (matched and missing)
- Session history tracking
- CSV export capability

## System Architecture

The system follows a simple web application architecture:

Frontend: User interface for uploading resumes and viewing results

Backend: Flask handles requests and processing

AI Layer: Claude API performs analysis

Parsing Layer: PyPDF2 extracts text from resumes

## Technologies Used

- Python
- Flask
- PyPDF2

- Claude AI API

## **How the System Works**

1. User uploads resumes
2. System extracts text from PDFs
3. AI analyzes resumes against job description
4. System generates scores and insights
5. Results are displayed and ranked

## **Conclusion**

This system demonstrates how AI can be used to improve hiring efficiency and decision-making. It provides a scalable and practical solution for modern recruitment challenges.