Smart Resume Screener

Intelligently parse resumes, extract skills, and match candidates to job descriptions using LLM-based semantic analysis.

Objective

The Smart Resume Screener automates candidate evaluation by:
- Extracting structured information (skills, experience, education) from resumes.
- Comparing candidates' skills sections with job descriptions.
- Ranking candidates using an LLM for semantic fit.
- Providing justifications and recommendations for each candidate.


Features
- Upload **PDF or DOCX resumes**.
- Robust **Skills section extraction**, including variations like "Technical Skills," "Skills & Tools," etc.
- Semantic matching with LLM (Groq llama-3.1-8b-instant) to generate:
  - Score (1–10)
  - Justification
  - Matches
  - Recommendation
- Dashboard displays **top candidates** sorted by score.
- Simple CSV-based storage; no complex database required.

Tech Stack
- **Backend:** Python, Flask
- **Resume Parsing:** pdfminer.six, python-docx
- **LLM Integration:** Groq API (llama-3.1-8b-instant)
- **Frontend:** HTML, Bootstrap 5
- **Data Storage:** CSV (resumes.csv)

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Upload Resume

Choose resume (pdf/docx/txt)

Choose File	No file chosen
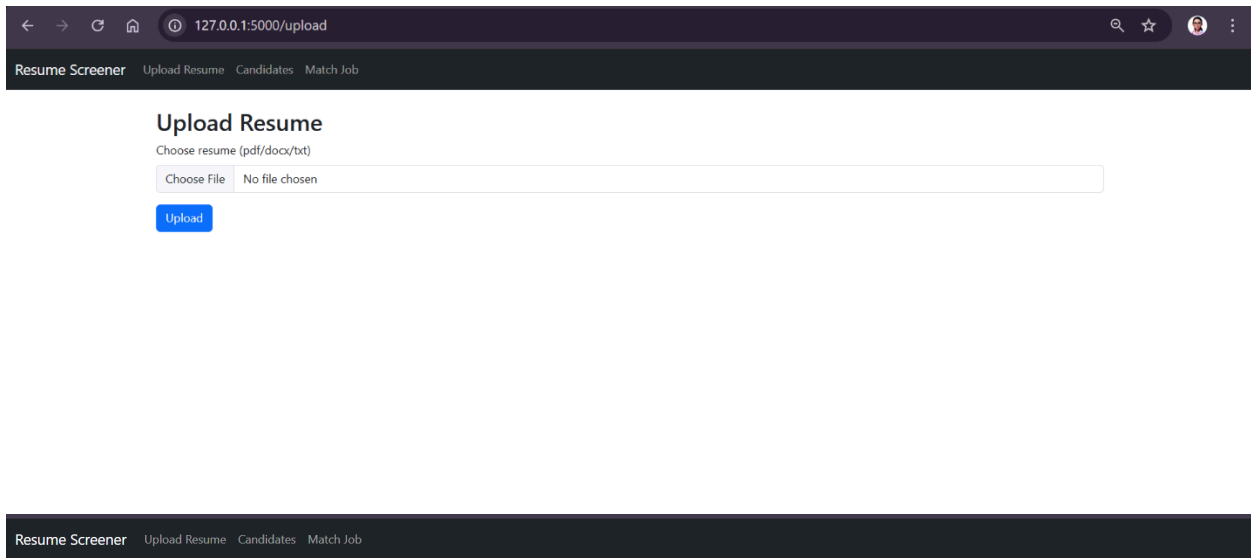
Upload

Candidates

ID	Name	Email	Skills	Actions
1	Shreya Asthana	shreya.asthana05@gmail.com	-	View
2	Shreya Asthana	shreya.asthana05@gmail.com	-	View

Match Candidates to Job

Job Description

Run Matching

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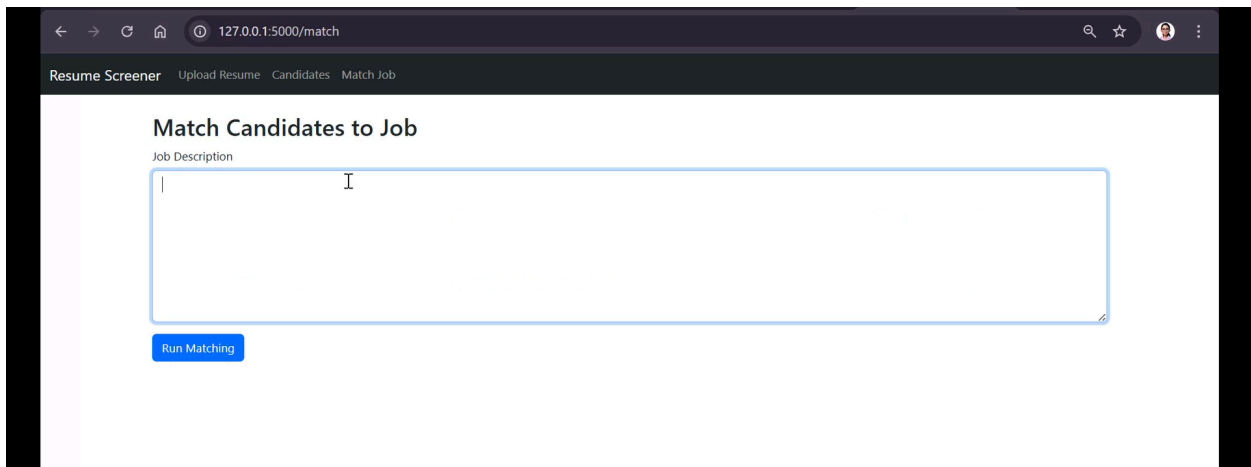
Shortlisted Candidates (by Score)

Job Description:

A highly motivated developer with skills in web development, and basic knowledge of ML

Candidate	Score	Matches	Recommendation
Shreya Asthana	0.80	web development basic knowledge of ML Python MERN stack Flask Streamlit Databricks LLM-powered RAG workflows semantic search vector databases embedding models chatbot systems MLflow Figma MySQL data-driven pipelines	Recommend for interview, but highlight the need for the candidate to demonstrate their ability to learn and adapt to new technologies and areas of expertise.

Justification:
The candidate has a strong background in AI and ML, and relevant experience in web development, but lacks experience in other areas mentioned in the job description.

Shreya Asthana	0.80	Python Flask Streamlit MySQL MongoDB HTML CSS Git Github VS Code Databricks Artificial Intelligence and Machine Learning	Highly recommend for further evaluation, with a focus on assessing the candidate's web development skills and experience with other frameworks.

Justification:
The candidate has a strong background in AI and ML, and relevant technical skills, but lacks experience in web development frameworks other than MERN and React.js.

Github repo: https://github.com/Shreya-Asthana/Smart-resume-screener