



Milestone

SkillSense: Smart Job Fit Analyser

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The Job Seeker's Dilemma

Judging Resume Fit

Job seekers often find it challenging to accurately gauge how well their resume aligns with a specific job description, leading to missed opportunities.

Identifying Skill Gaps

Many are unaware of the specific skills they lack for a desired role, making it difficult to target their development efforts effectively.

Manual Tailoring Effort

Manually customising resumes for each application is an incredibly time-consuming and often error-prone process.

Project Overview

What SkillSense Does ?

- SkillSense is an **AI-powered resume** intelligence system designed to help job seekers understand how well their resume matches a job description and what skills they need to improve.
- It's a personal career assistant, providing actionable insights to land the dream job.

High Level Workflow with Tech Stack



1. Upload Resume

User uploads a resume (PDF/Docx) with automatic text extraction.



2. Extract Skills & Experience

System extracts skills and experience using NLP pipelines (spaCy + rule-based patterns).



3. Process Job Description

Skills, keywords, and context are meticulously extracted from the job description.



4. Semantic Matching

Resume versus JD embeddings are compared using sentence-transformers.



5. Generate Match Score

A similarity score is generated, indicating the overall job fit.



6. Recommend Missing Skills

System identifies and recommends skills present in the JD but missing from the resume.

Tech Stack:

HTML



CSS



Frontend
(UI)

django

Backend



Database



spaCy

NLP



Hugging Face

ML

OVERVIEW

An intelligent system that compares a candidate's resume with a job description, identifies missing skills, and recommends courses to improve the match score.

Resume Matcher

Technical Workflow

Resume Matcher

Missing Skills Highlight:

- Show not just the “match score” but also *which key skills from the JD are missing in the resume*. This gives actionable insights.

Courses / Learning Paths:

- Based on missing skills, recommend relevant courses



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- Growing Skill Gap in Industry
 - Recruiters Prefer Skill-Aligned Candidates
 - Self-Awareness Problem
 - Overwhelming Learning Landscape

SKILL RECOMMENDER

Why it's Needed & Core Idea

CORE IDEA OF SKILL RECOMMENDER



Input



Job Description Analysis



Skill Gap Detection



Personalised
Recommendations



Ranking Among Resumes



Output



SKILL RECOMMENDER

Technical Overflow+Recommendation Algorithms:

SKILL RECOMMENDER:

Technical Workflow:

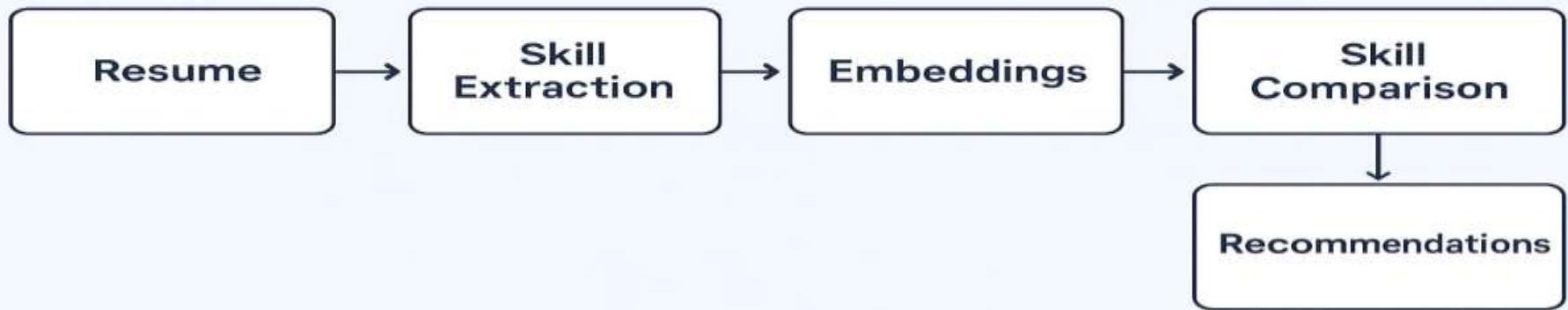
- Extract skills from candidate resumes using NLP.
- Convert extracted skills into embeddings (vector representations).
- Compare candidate skills with job skill database.
- Rank missing or recommended skills based on similarity.

Recommendation algorithm:

- Rule-Based: Directly suggest skills required for a job role.
- Content-Based: Suggest skills similar to candidate's existing skills using embedding similarity.
- Optional: Hybrid approach combines both for optimal recommendations.

TECHNICAL OVERFLOW:

Skill Recommender – Technical Workflow





SKILL RECOMMENDER

System Architecture & Tech Stack

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UI Enhanced

Layout: Components reorganized into a clean, responsive grid for better clarity and quick navigation.

Visual Polish: Improved spacing, typography, and alignment to deliver a modern, user-friendly interface

1. Intelligent Dark/Light Mode UI

- Modern UI upgrade with seamless theme switching.
- Auto-saves user preference using local storage.
- Enhances accessibility & reduces eye strain.
- Delivers professional, dashboard-style experience for long evaluation sessions.
- Ensures smooth visual performance without affecting donut-chart analytics.

2. Built-in SkillSense Chatbot Assistant

- Lightweight, embedded AI helper inside the dashboard.
- Provides instant responses:
 - **Top matching resume**
 - **Missing skills for a candidate**
 - **Skills present in the resume**
 - **Recommended courses to upskill**
 - **Score breakdown for all resumes**

- SkillSense helps users understand how job-ready they are
- Provides match scores and skill recommendations
- Useful for job seekers, career counselors, and placement cells



THANK YOU!

A woman with blonde hair tied back is smiling broadly, holding a black smartphone in her hands. She is wearing a light-colored jacket over a dark top. In the background, several other people are visible, though they are out of focus. The overall atmosphere is positive and professional.

Now, seeing the Project Demonstration....