MATCHING OF JOB OPENINGS WITH SKILL DATABASE USING MACHINE LEARNING

PSG Hackathon - I Hack My Place

Presented By:
20Z202 - Abhishek M B
20Z243 - Samyuktha M S

Introduction

In a rapidly evolving job landscape, finding the perfect fit between skills and job opportunities is pivotal for both job seekers and employers.
Our primary objective is to create a dynamic platform that seamlessly connects individuals' unique skill sets to the right job opportunities, using the power of Artificial Intelligence.

ARCHITECTURE

Frontend	Backend	Database	Careerbot	Job Recommendation Engine
Users access the platform through the frontend interface, where they can register, input their skill sets, and submit their resumes.	The backend is responsible for managing user profiles, skill data, job details, and other relevant information. It handles user requests, processes data, and communicates with the chatbot and recommendation engine.	User data, including skill sets and resumes, are stored securely for analysis and future use. It is the main hub for storing skillset database.	CareerBot is developed using the open-source LLM Llama model, fine-tuned on data from skill databases, job listings, and textual documents. It interprets natural language interactions from users, processes their skill sets, and provides personalized recommendations.	Emploi's recommendation engine suggests relevant job openings to users based on their profiles and skill data. The engine utilizes user information and skill requirements from the skill database to match users with suitable job opportunities.

TECHNOLOGY STACK

1. HTML, CSS, JavaScript: The frontend of Emploi is built using these fundamental web technologies to create the user interface and ensure a visually appealing and interactive experience for users.

2. Flask: Emploi's backend is powered by Flask, a Python web framework. Flask provides a lightweight and flexible foundation for handling user requests, managing data, and interacting with the chatbot and recommendation engine.

3. Python: As the primary programming language for backend development, Python offers a wide range of libraries and tools, making it suitable for processing data and integrating various components.

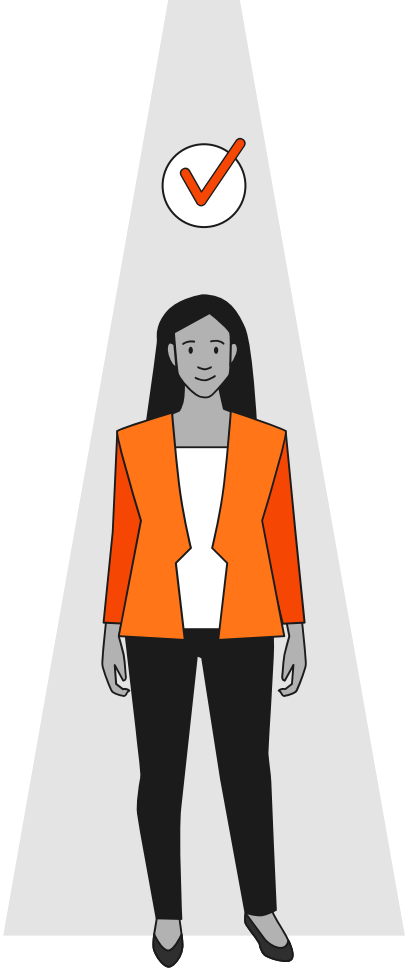
4. LLM Llama: The core of Emploi's AI functionality lies in the LLM Llama model, an open-source large language model. LLM Llama is employed for natural language understanding, enabling the CareerBot to engage in conversations, analyze user input, and provide accurate recommendations.

CORE CONCEPTS

1. Users register and create profiles, inputting their skill sets and submitting resumes through the frontend interface.
2. The backend securely stores user data in the database for future analysis.
3. CareerBot engages in natural language conversations with users, analyzing their skill sets to identify gaps.
4. Based on the analysis, CareerBot recommends courses, certifications, or additional skills to bridge the identified gaps.
5. For users interested in internal career transitions, CareerBot provides insights into suitable career paths within their current company.
6. The mentor-mentee functionality connects users with appropriate mentors for personalized career guidance.
7. The dynamic job recommendation engine suggests job openings to users based on their profiles and submitted resumes.
8. Users receive tailored job notifications, streamlining their job-seeking efforts and aligning with their skill sets and preferences.

KEY FEATURES

1. Comprehensive Skill Database
2. AI-Powered CareerBot
3. Skill Gap Analysis
4. Personalized Recommendations
5. Internal Career Transitions
6. Mentor-Mentee Support
7. Dynamic Job Notifications
8. Real-Time Job Recommendations
9. User-Friendly Interface
10. Data-Driven Insights
11. Continuously Updated Skill Database
12. Interactive Conversation
13. Seamless Integration



THANK YOU !