Semantic AI-Powered Resume Analyzer and Job Recommendation System with Cloud Deployment

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Abstract: *In today's highly competitive job market, job seekers often face the challenge of navigating through overwhelming volumes of job postings, many of which may not align with their qualifications or career goals. Traditional job portals rely heavily on manual search and keyword matching, resulting in inefficient and time consuming job hunting processes. Additionally, the lack of personalized recommendations often leads to missed opportunities and poor job-to-candidate matching, especially for individuals with specialized skills or unique career paths. This project introduces an AI-based job recommendation system designed to address these challenges by offering intelligent, personalized job suggestions. Users can register and upload their resumes, which are securely stored in a centralized database. A dedicated resume analysis module leverages a Multi-Layer Perceptron (MLP) model to interpret the user's qualifications, experience, and skills. The system then compares this data with job listings uploaded by employers to identify the most relevant opportunities. By automating the matching process and delivering real-time job alerts, the system significantly enhances the job search experience. It reduces the effort required to find suitable positions while increasing the chances of securing relevant employment. This AI-driven solution not only streamlines recruitment but also bridges the gap between job seekers and employers, promoting faster and more effective employment outcomes.*

Keywords: AI Resume Analysis, MLP