

Automated Job Search Using Resume Keywords VIA APIs

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Abstract: *This project presents an Automated Job Search System that uses Natural Language Processing [2] (NLP) to extract key information from resumes and match it with real-time job listings through APIs. The system parses unstructured resume documents to identify structured details such as skills, qualifications, experience, and job roles. These extracted keywords are then compared with job descriptions retrieved from external Job Search APIs.*

Unlike traditional keyword-based search systems, the proposed solution incorporates semantic matching [9] techniques to analyze contextual similarity between resumes and job postings. This improves recommendation accuracy and reduces irrelevant results. The architecture combines resume parsing, keyword extraction, API-based job retrieval, and ranking algorithms to create a complete automated job-matching pipeline. By automating resume analysis [8] and job searching, the system reduces manual effort, enhances efficiency, and provides personalized job recommendations [6]. The scalable and API-driven design makes it suitable for integration with recruitment platforms and career guidance systems..

Keywords: Resume Parsing, Job Matching APIs, Natural Language Processing [2], Semantic Matching, Recommendation System

