Automated AI Resume Screening & Job Matching SaaS

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1 Project Overview

he Automated AI Resume Screening & Job Matching SaaS is designed to streamline the hiring process for HR departments and recruitment agencies. By leveraging machine learning models, the system automatically scans resumes, extracts relevant information, and matches candidates to job descriptions based on skill relevance. The objective is to reduce hiring time, eliminate bias, and improve candidate selection accuracy. This solution ensures that only the most qualified candidates are shortlisted for job opportunities.

2 Core Features and Requirements

The system utilizes NLP-based resume parsing to extract candidate qualifications and skills. AI-driven job matching ranks candidates based on experience, education, and role fit. Predictive analytics assess candidate success probabilities based on historical hiring data. Seamless integration with applicant tracking systems (ATS) enhances recruitment workflows. Automated candidate ranking reduces manual resume screening efforts.

3   Technology Stack

The backend will be developed using FastAPI, and the frontend will use Angular.js for an intuitive user experience. Resume parsing and job matching models will be built with BERT and Random Forest classifiers. PostgreSQL will store applicant data, while cloud hosting on Azure will ensure reliable performance.

4   Expected Outcomes

The AI-powered hiring assistant will significantly reduce recruitment timelines, improve job-candidate matching accuracy, and provide data-driven hiring insights. Businesses will benefit from streamlined HR operations and enhanced hiring efficiency.