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Business Domain

Recruitment and Human Resources

Project Type

Global web platform with cloud based microservices backend

Enhancing Candidate Search with Advanced Skill Extraction

Client

A recruitment platform aimed at connecting job seekers with employers. The platform focuses on providing advanced search capabilities to match candidates' skills with job requirements, enhancing the hiring process's efficiency and accuracy.

Project

The project implemented an advanced skill extraction solution using an 8-billion-parameter fine-tuned foundation model. This solution enhanced the accuracy of parsing and categorizing skills from resumes and candidate information, thereby, improving the platform's search and matching capabilities.

Objective

The primary objective was to refine the candidate search process by accurately extracting and categorizing skills from candidate data. This enhancement aimed to ensure that job seekers are matched more effectively with job openings that suit their skill sets, thereby increasing the relevance and satisfaction of both employers and candidates.

Team Reinforcement

The project likely required collaboration with a team of data scientists, AI specialists, and software engineers. This team worked on fine-tuning the model, integrating it into the existing platform infrastructure, and ensuring that the solution met the specific needs of the recruitment industry.

Challenge

The key challenge was the platform's existing system's inability to accurately parse and extract skills from resumes, which led to less effective matching of candidates with job opportunities. This issue affected user satisfaction and limited the platform's effectiveness in providing relevant search results.

The customer struggled with accurately parsing and extracting skills from resumes, leading to suboptimal search results and mismatches in candidate-job pairings. This issue affected user satisfaction and the overall effectiveness of the recruitment platform.

The client lacked an R&D team for major development projects and only had a small in-house team for support and maintenance. Therefore, they needed external vendor support to reinforce their team.

Quick Facts

- ✓ Enhanced Skill Extraction Accuracy
- ✓ Increased Search Relevance
- ✓ Boosted User Retention

Technologies

AWS / Generative AI / Python / PyTorch / Java / ElasticSearch

Solution

★ 01

Successful integration of a fine-tuned 8 billion parameter foundation model into the recruitment platform, enhancing its natural language processing capabilities.

★ 02

Creation of a comprehensive skill taxonomy to guide the model in consistently identifying and categorizing a wide range of skills, from common to niche.

★ 03

Notable improvement in the precision and recall of the skill extraction process, although the initial accuracy of 40% highlighted the need for further refinement.

★ 04

A 20% increase in the relevance of search results, as measured by user feedback, indicating better alignment between candidate skills and job requirements.

★ 05

A 12% increase in user retention rate, particularly among recruiters and employers, suggesting that the enhanced search capabilities improved the overall user experience.



Client Reference



The Intetics team showcased exceptional professionalism and technical expertise, meeting our strict deadlines and fulfilling all requirements.

Head of Engineering

Benefits and Results

- ★ Achieved 40% accuracy in skill extraction, though below the 90% target.
- ★ Improved search result relevance with a 20% increase in relevance scores.
- ★ Increased user retention rate by 12%, surpassing the target of 10%.