SKILL/JOB RECOMMENDER APPLICATION

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PROBLEM DEFINITION

Heighten your career by showing the world your skills you've developed! As from the perspective of a recruiter and a job seeker, both need an exceptional employee and an industry respectively, we people come up with a cloud based application as a bridge to connect these two people all over the planet.

Aim is to transpire the skill/job recommender application which matches the job with applicant's skill and notify an appropriate job to the applicant along with the job description, salary range and other essential information. This application is provided with an artificial interactive agent which is capable of clarifying the applicants query towards the application and its working.

PAPER I

PAPER TITLE : A survey of job recommender systems

AUTHOR : Shaha Alotaibi

JOURNAL NAME : ResearchGate

PUBLISHED ON : July, 2012

ABSTRACT

The Internet-based recruiting platforms become a primary recruitment channel in most companies.

While such platforms decrease the recruitment time and advertisement cost, they suffer from an inappropriateness of traditional information retrieval techniques like the Boolean search methods. Consequently, a vast amount of candidates missed the opportunity of recruiting.

The recommender system technology aims to help users in finding items that match their personnel interests, it has a successful usage in e-commerce applications to deal with problems related to information overload efficiently.

In order to improve the e-recruiting functionality, many recommender system approaches have been proposed.

This article will present a survey of e-recruiting process and existing recommendation approaches for building personalized recommender systems for candidates/job matching.

LIMITATIONS

Falsified information provided by the candidate, which is left unchecked leads to declination of a properly skilled deserving candidate’s opportunity.

This may cause false recruitment, wastage of resource from the company side.

Loss of trust over search engines for job seeking candidates.

In order to overcome these, we can start with avoiding the usage of Boolean Search methods , so that we can cultivate better results.

PAPER II

PAPER TITLE : A research of job recommendation system

AUTHOR : Cheng Yang
Yingya Zhang
Zhixiang Niu

JOURNAL NAME : IEEEXplore

PUBLISHED ON : December, 2014

ABSTRACT

Dealing with the enormous amount of recruiting information on the Internet, a job seeker always spends hours to find useful ones.

To reduce this laborious work, we design and implement a recommendation system for online job hunting. In this paper, we contrast user-based and item-based collaborative filtering algorithm to choose a better performed one.

We also take background information including students' resumes and details of recruiting information into consideration, bring weights of co-apply users (the users who had applied the candidate jobs) and weights of student used liked jobs into their commendation algorithm.

At last, the model we proposed is verified through experiments study which is using actual data.

The recommended results can achieve higher score of precision and recall, and they are more relevant with users' preferences before.

LIMITATIONS

Keeping in mind about the wasted time and inappropriateness in job seeking, here we use a special method called collaborative filtering.

By using collaborative filtering, we analyze the candidate’s resume and the companies’ recruitment guidelines, to compare and come to a better conclusion upon finding the best suited candidates for the job.

PAPER III

PAPER TITLE : Job Recommendation based on Job Seeker Skills

AUTHOR : Jorge Valverde-Rebaza
Ricardo Puma
Paul Bustios
Nathalia C. Silva

JOURNAL NAME : ResearchGate

PUBLISHED ON : March, 2018

ABSTRACT

In the last years, job recommender systems have become popular since they successfully reduce information overload by generating personalized job suggestions.

Although in the literature exists a variety of techniques and strategies used as part of job recommender systems, most of them fail to recommending job vacancies that fit properly to the job seekers profiles.

Thus, the contributions of this work are threefold,

- made publicly available a new dataset formed by a set of job seekers profiles and a set of job vacancies collected from different job search engine sites.
- put forward the proposal of a framework for job recommendation based on professional skills of job seekers.
- carried out an evaluation to quantify empirically the recommendation abilities of two state-of-the-art methods, considering different configurations, within the proposed framework.

LIMITATIONS

When a candidate submits his/ her profile at a job seeker engine, their job recommendations are mostly suggested taking their academic qualification and work experience into considerations.

This contemporary method bring job suggestions that might not be what the candidate seeks for.

To be more precise upon the job suggestion, we need to focus more on the candidate’s skillset rather than just his academic qualification.

PAPER IV

PAPER TITLE : Skill-driven recommendations for job transition pathways

AUTHOR : Nikolas Dawson
Marian-Andrei Rizoiu
Mary-Anne Williams

JOURNAL NAME : PLOS ONE

PUBLISHED ON : August, 2021

ABSTRACT

Job security can never be taken for granted, especially in times of rapid, widespread and unexpected social and economic change. These changes can force workers to transition to new jobs. This may be because new technologies emerge or production is moved abroad.

Perhaps it is a global crisis, such as COVID-19, which shutters industries and displaces labor en masse. Regardless of the impetus, people are faced with the challenge of moving between jobs to find new work. Successful transitions typically occur when workers leverage their existing skills in the new occupation.

Our results show that not only can we accurately predict occupational transitions (Accuracy = 76%), but we account for the asymmetric difficulties of moving between jobs. We also build an early warning indicator for new technology adoption, a major driver of rising job transitions.

By using real-time data, our systems can respond to labor demand shifts as they occur (such as those caused by COVID-19).

LIMITATIONS

During times of employee layoffs, they move to other companies for better stuffs, this leads to intake of new candidates, as a result of this, many new candidates apply for the same position.

In order to find the correct persons, search engines require many layers of new filtering algorithms.

We have to compare the new candidates to other companies’ candidates with same skillset and occupation.

THANK YOU!