SKILL/JOB RECOMMENDER

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PROJECT NAME	**SKILL/JOB RECOMMENDER**
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LITERATURE SURVEY-1

TITLE : Job Recommendation Based on Job Seeker Skills.

AUTHOR : Jorge Carlos Valverde-Rebaza, Ricardo Puma, Paul Bustios,

Nathalia C Silva

YEAR OF PUBLISHED : 2018

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 three fold, we:

i)   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;

ii)   put forward the proposal of a framework for job recommendation based on professional skills of job seekers;

iii)   carried out an evaluation to quantify empirically the recommendation abilities of two state-of-the-art methods, considering different configurations, within the proposed framework. We thus present a general panorama of job recommendation task aiming to facilitate research and real-world application design regarding this important issue.

LITERATURE SURVEY-2

TITLE: Job recommender systems

AUTHOR: Dhameliya, J. and Desai, N.

YEAR OF PUBLISHED: 2019

From the last two decades internet based recruiting platforms have become a primary channel in most companies for recruiting talents. Such portals decrease the advertisement cost, but they suffer from information overload problem. Job portals using traditional information retrieval techniques such as Boolean search methods are typically using simple word matching algorithms. The main issue of these portals is their inability to understand the complexity of matching between candidates' desires and organizations' requirements.

Hence, a vast amount of deserving candidates misses the opportunity to get an appropriate job. The recent recommender systems have achieved success in e-commerce applications. In order to improve the functionality of e-recruitment process, many recommendation systems approaches have been proposed. we present a survey of existing recommendation approaches that have been used for building the personalized recommendation systems for job seekers as well as recruiters. Also we have identified the challenges in building a job recruitment system as compared to recommendation systems in other domain.

LITERATURE SURVEY-3

TITLE: Job Recommendation System based on Text Analysis

AUTHOR: D. Mhamdi, R. Moulouki, M.Y. El Ghoumari, M. Azzouazi

YEAR OF PBLISHED:2020

This article presents a job recommender system suggesting pertinent candidates for an offer posted by a recruiter. To accomplish this task, the data is collected from job recruiting websites then it is prepared through the extraction of appropriate attributes such as job titles, skills and experiences required for the targeted occupation. In a simple way, a job offer can be considered as a document mainly composed of two parts: a title and a job description. The title summarizes the role or position offered by the employer. The description usually provides the position details, including all the required relevant skills, according to the employer specifications.

The proposed recommender system is based on the classification of job profiles. We first extract meaningful features from data by transforming noisy and unstructured textual data into structured formats, so it can be handled more clearly using text analysis algorithms based on topic modeling approach. The structured and cleaned data from job offers is matched with the data from resumes and a weighting of main attributes is set up before rendering the result as sorted recommendations.

LITERATURE SURVEY-4

TITLE: Job recommender systems.

AUTHOR: Corné de Ruijt, Sandjai Bhulai

YEAR OF PUBLISHED: 2021

The job recommender system (JRS) literature published in the past decade (2011-2021). Compared to previous literature reviews, we put more emphasis on contributions that incorporate the temporal and reciprocal nature of job recommendations. Previous studies on JRS suggest that taking such views into account in the design of the JRS can lead to improved model performance.

Also, it may lead to a more uniform distribution of candidates over a set of similar jobs. We also consider the literature from the perspective of algorithm fairness. Here we find that this is rarely discussed in the literature, and if it is discussed, many authors wrongly assume that removing the discriminatory feature would be sufficient. With respect to the type of models used in JRS, authors frequently label their method as `hybrid'. Unfortunately, they thereby obscure what these methods entail.

Using existing recommender taxonomies, we split this large class of hybrids into subcategories that are easier to analyse. We further find that data availability, and in particular the availability of click data, has a large impact on the choice of method and validation. Last, although the generalizability of JRS across different datasets is infrequently considered, results suggest that error scores may vary across these datasets.

LITERATURE SURVEY-5

TITLE : Enhanced DSSM technique for job recommendation

AUTHOR: Ravita Mishra, Sheetal Rathi

YEAR OF PUBLISHED: 2021

The job recommender system plays an important role in the recruitment process of fresher as well as experienced today. Existing job recommender system mainly focuses on content-based filtering to extricate profile content and on collaborative filtering to capture the behaviour of the user in the form of rating.

Dynamic nature of job market leads cold start and scalability issues. This problem can be addressed by item-based collaborative filtering with a machine learning technique, it learns job embedding vector and finds similar jobs content-wise. Existing model in job recommender domain uses the confining model to address the cold start and scalability issue and provide better recommendation, but they fail to accept the complex relationships between job description and candidate profile.

Deep semantic structure modelling (DSSM) system uses the semantic representation of sparse data and it represent the job description and skill entities in character trigram format which increases the efficacy of the system. and it gives satisfactory results. Experimental results shows that the DSSM Embedding model and its other variants are provides promising results in solving cold start problem in comparison with several variants of embedding model. We used Xavier initializer to initialise the model parameter and Adam optimizer to optimize the system performance.