### **Skill/Job Recommendation**

## **Application**

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**SUMMARY OF LITERATURE SURVEY**

A review has been made on different approaches in various research articles. A detailed study is made by referring various papers of different fields, such as load demand forecasting, data mining techniques, soft computing approaches and different application that uses time series process. The methods involved in each article is discussed briefly, it also includes merits and demerits of each work. Finally a summarise is made based on the survey.

**Job Recommendation based on Job Seeker Skills: An**

**Empirical Study**

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 it properly to the job seekers profiles. Thus, the contributions of this work are threefold.

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.

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**Skills Recommending Module**

The Skills Recommending will demonstrate the workflow of the system that uses resumes and a skill dataset to identify the top five skills for each position. The following paragraphs go into the implementation's details**.**



**Skills Recommending Module**

The skill dataset and resumes are the inputs for this module. Skills for the jobs are contained in a skill dataset. The algorithm will now compare the word list for both the skill dataset and the resume. Additionally, print the top five talents that don't match the resume. The system will list the top 5 occupations and top 5 abilities that the resume holder needs to develop in this module. There are several cleaning procedures for the skill dataset, such as deleting the prefix and suffix spaces used to match the words.

**Ethical aspects in job recommender systems**

In their literature review on applied machine learning in human resource management, Strohmeier and Piazza *“Ethical and legal aspects are not broadly considered in current research, only equality of treatment and protection of privacy issues are discussed"*.

Unfortunately, in job recommender literature, equality of treatment is also rarely considered, and if it is considered, the authors indeed come to the conclusion that simply excluding the discriminatory feature would be sufficient.

**THE RECRUITING PROCESS**

Recruiting process is a core function of human resource management treating the labor as one of the important factors of production. The key construction of a job description and a candidate specification. Moreover, Breaugh and Starke (2000) composed the recruiting process into five main tasks: short-term and long-term candidate attraction, applicant management, pre-selection as well as the final selection of candidates. Short-term and long-term marketing measures are establishing the attractive employer image that intended to attract qualified candidates.

**Recommender Systems**

As discussed previously, RecSys are the system that analyses user preference history and caters them with different options of services related to the requirement. Recommender systems emerged as an independent research area in the mid-1990s(Ricci et al., 2011). In recent years, the interest in recommender systems has dramatically increased. In the Recommendation algorithm, it classifies into four types: Content-based filtering, Collaborative filtering, Rule-based, and Hybrid approaches.

**JOB RECOMMENDATION SYSTEM USING MACHINE LANGAUGE AND NATURAL LANGUAGE PROCESSING**

The rise of digital communication and the spread of the internet has made an enormous impact in every industry. One such domain is the Hiring process, where a job seeker applies to a job by creating a profile on a job portal by providing all his/her work preferences. These work preferences of each user can be collected from each user and provide job recommendations based on their preference. There had been work done in this field, where researchers have implemented Recsys using the Hybrid filtering method as user data had previous interaction with item (Rafter et al., 2000).In this dissertation, we have approached the problem with the three-tier approach design. Data acquired for our study has no previous interaction between the user data and Job listing data. With such a dataset, we have addressed the issue of cold start from both User and Job perspective. **Author - Jeevan krishna**