SKILL AND JOB RECOMMENDER APPLICATION

INTRODUCTION:

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.

Key words: Recommender systems, collaborative filtering, content-based filtering, hybrid approach, machine learning, e-recruiting, similarity measure.

LITERATURE SURVEY:

There are major requirements presented in literatures that should be derived when recommending candidates for a specific job (Malinowski et al., 2006, 2008; Keim, 2007).

1. The matching of individuals to job depends on skills and abilities that individuals should have.

2. Recommending people is a bidirectional process that needs to take into account the preferences not only of the recruiter but also of the candidate.

3. Recommendations should be based on the candidate attributes, as well as the relational aspects that determine the fit between the person and the team members with whom the person will be collaborated.

4. Individual is considered to be unique; we cannot choose a single person several times such as a movie or book.

Job recommendation problem is bidirectional recommendation between job-seeker and job. The recommendation process can be divided into two parts: job recommendation and job-seeker recommendation. The design idea of these two parts is the same roughly (Yu et al., 2011; Malinowski et al., 2006). For a job-seeker, the job with higher matching degree should be recommended to him. Similarly, for a job, the job-seeker with higher matching degree should be recommended to it (Yu et al., 2011). In general, the ranking items either are the top n candidates that best fit the job in consideration or the top n job profiles that best fit the candidates" preferences. Additionally, Fazel-Zarandi and Fox (2010) mentioned that skills requirements matching need to distinguish between must-have and nice-to-have requirements in the matching process. Must-have requirements are constraints that should be possessed by the applicant, whereas nice-to-have requirements are preferences that are taken into consideration when ranking applicants. Most works are just built for the companies or for the purpose of making money from the people by giving some irrelevant choices. Many were using collaborative recommendation, which recommends the many searched jobs or the jobs which were chosen by some other. It only works if the system deals with more number of resumes which seems it can only be used by the companies. Some systems are asking to log in and some were asked to buy subscriptions. Logging in makes you redirect some spam mails. In many papers, they have been solved through content recommender which is not enough. A literature paper had done research on content recommender system, vectorizer, and cosine similarity in a row but in that the author doesn't think about the implementation process and only concentrated more on securing the data.

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