

SKILL AND JOB RECOMMENDER

Literature Survey

TEAM LEADER:

KAMALESH B (610519104048)

MENTOR:

TEAM MEMBERS:

Ms. SASIKALA M M.E.,

DHARUN T (610519104016)

PRAVEEN KUMAR K C (610519104302)

BOSHA PRANESH M (610519104010)

1.” A survey of job recommender systems”

Author : Shaha T. Al-Otaibi and Mourad Ykhlef (2012)

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.

2. “Job Recommender Systems: A Review”

Author : Sandjai Bhulai and Corné de Ruijt (2021)

This paper provides a review of 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.

3.” JOB RECOMMENDATION SYSTEM BASED ON SKILL SETS”

Author : G.Mahalakshmi , A.Arun Kumar , , B.Senthilnayaki , J.Duraimurugan (2022)

Machine learning is a sub-field of data science that concentrates on designing algorithms that can learn from and make predictions on the data. Presently recommendation frameworks are utilized to take care of the issue of the overwhelming amount of information in every domain and enable the clients to concentrate on information that is significant to their area of interest. One domain where such recommender systems can play a significant role to help college graduates to fulfill their dreams by recommending a job based on their skill set. Currently, there are plenty of websites that provide heaps of information regarding employment opportunities, but this task is extremely tedious for students as they need to go through large amounts of information to find the ideal job. And many students are not aware of which job is suitable for them. Nowadays, the IT fields are in a boom. Many engineering students are learning some technical skills by doing some courses but they don't know which skill is for which job. Simultaneously, existing job recommendation systems only take into consideration the domain in which the user is interested while ignoring their profile and skillset, which can help recommend jobs that are tailor-made for the user. This paper examines the user's resume then compares the knowledge of degree, soft skills, hard skills, and the projects he has done and then only the system recommends the jobs for that user. The system not only recommends the jobs but also shows the score of his/her resume for the respective job. Then, the system also recommends skills to improve the scores of their resume.

4.” Job Recommendation System Using Profile Matching And Web-Crawling”

Author : Deepali V Musale , Mamta K Nagpure, Kaumudini S Patil, Rukhsar F Sayyed (2016)

The developed system is job recommendation system for campus recruitment which helps college placement office to match company's profiles and student's profiles with higher precision and lower cost. For profile matching, two matching methods are used: semantic matching, tree-based knowledge matching and query matching. These methods are integrated according to representations of attributes of students and companies, and then the profile similarity degree is acquired. Based on profile similarity degree, preference lists of companies and students are generated. Also students can perform keyword based search for job profiles from various job recruitment sites (e.g. Naukari.com,indeed.com). For obtaining data from online recruitment sites system uses web crawling. With loop matching, matching results would be further optimized and provide more effective guidance for recommendation.