

Skill Based Job Recommender

Abstract:

There has been a sudden boom in the technical industry and an increase in the number of good startups. Keeping track of various appropriate job openings in top industry names has become increasingly troublesome. This leads to deadlines and hence important opportunities being missed. The aim is to automate this process to eliminate this problem. To achieve this, We are Skill based job recommender app. A hybrid system of Content-Based Filtering and Collaborative Filtering is implemented to recommend these jobs. The intention is to aggregate and recommend appropriate jobs to job seekers, especially in the engineering domain. The entire process of accessing numerous company websites hoping to find a relevant job opening listed on their career portals is simplified. The proposed recommendation system is tested on an array of test cases with a fully functioning user interface in the form of a web application. It has shown satisfactory results, outperforming the existing systems. It thus testifies to the agenda of quality over quantity.

Literature Survey

Paper 1 : A survey of job recommender systems

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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. As part of our ongoing research, we aim to build a new recommendation approach and test with real data for employee and staffing data from large companies. In addition to, we plan to enhance the similarity measures that suitable for this problem. In this article, we used a literature analysis of many journals and proceedings related to the recruiting process and the job recommendation researches.

Paper 2 : Job Recommendation based on Job Seeker Skills

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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, 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; and 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. In this paper, we proposed a framework for job recommendation task. This framework facilitates the understanding of job recommendation process as well as it allows the use of a variety of text processing and recommendation methods according to the preferences of the job recommender system designer. Moreover, we also contribute making publicly available a new dataset containing job seekers profiles and job vacancies.

Paper 3: Job Seekers' Acceptance of Job Recommender Systems

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Based on UTAUT2 and the importance of trust to explain user behavior in relation to recommender systems, we focus on job recommender systems by developing and validating a job recommender system acceptance model. The results of our empirical, survey-based study with 440 job seekers indicate that beside performance expectancy and habit, trust is among the three most important determinants and it is especially relevant for women, passive job seekers and those without experience in using job recommender systems. The paper extends general trust and recommender system research by revealing three moderators for the trust and intention relationship. It contextualizes the UTAUT2 by incorporating trust as an antecedent of a consumer's intention to use and by revealing three moderating effects for this relationship. Hence, it is the basis for further studies investigating the acceptance of job recommender system, which has rather been neglected by prior research. Our research was motivated to analyze the influence of trust compared to other variables predicting the intention to use job recommender systems. We observe that performance expectancy, hedonic motivations, habit, and trust are important predictors of the intention to use job recommender systems. Hence, job seekers who evaluate the performance of job recommender systems positively, who enjoy using it, who trust it, and who have a habit to use online recruiting services in general have a high intention to use job .

Paper 4: Job Recommendation System Using Profile Matching And Web-Crawling

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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. In this paper, the efforts were put to take into consideration the job preferences of the candidates along with the content based profile matching, providing SMS based recommendation. Also the jobs are recommended from the online website like naukri.com, etc. The first type of recommendation is done through web portal by using keyword based search and second type of recommendation is done through profile matching and sending notification to the students. Thus proper job recommendations are provided to the students.