Literature Survey

Team ID:	PNT2022TMID17475
Project Name:	JOB / SKILL RECOMMENDER
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Paper I

Job Recommentation Based on Cloud App Management

[A. Jorge, R. Campos, A. Jatowt, S. Nunes]

Abstract :

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.

Advantages:

- Through personalized email messages and targeted blasts, a recommendation engine can encourage elevated amounts of traffic to your site, thus increasing the opportunity to scoop up more data to further enrich a customer Profile.

- The data is collected in real time so the software can react as shopping habits change on the fly.

- Shoppers become more engaged when personalized product recommendations are made to them across the customer journey.

- Kibo Research shows that 52% of retailers are leveraging AI-driven personalization to deliver personalized product recommendations to their customers.

- The volume of data required to create a personal shopping experience for each customer is usually far too large to be managed manually.

Drawbacks:

- Building and managing recommender systems today requires specialized expertise in analytics, applied machine learning, software engineering, and systems operations. This makes it challenging regardless of your background or skillset.

Paper II

JOB / SKIL RECOMMENDER AN REVIEWS

[Dr.Dhananjaya]

Abstract:

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..

Advantages:

- Recommender systems can help them find items which they are interested in. For enterprises, recommender systems can improve the loyalty of their customers by enhancing the user experience and further convert more browsers to consumers.
- Recommendation systems are efficient machine learning solutions that can help increase customer satisfaction and user retention, and lead to a significant increase in your business revenues.

Drawbacks:

- Recommendation engines are a big investment, not only financially, but in terms of time, too: it takes a long time and deep expertise to build an effective recommendation engine in-house.