

SKILL AND JOB RECOMMENDER

LITERATURE SURVEY ON THE SELECTED PROJECT & INFORMATION GATHERING

Introduction:

Nowadays, job search is a task commonly done on the Internet using job search engine sites like LinkedIn¹, Indeed², and others. Commonly, a job seeker has two ways to search a job using these sites: 1) doing a query based on keywords related to the job vacancy that he/she is looking for, or 2) creating and/or updating a professional profile containing data related to his/her education, professional experience, professional skills and other, and receive personalized job recommendations based on this data. Sites providing support to the former case are more popular and have a simpler structure; however, their recommendations are less accurate than those of the sites using profile data. Personalized job recommendation sites implemented a variety of types of recommender systems, such as content-based filtering, collaborative filtering, knowledge-based and hybrid approaches [AlO12]. Moreover, most of these job recommender systems perform their suggestions based on the full profile of job seekers as well as by considering other data sources such as social networking activities, web search history, etc. Despite the fact that many data sources can be useful to improve the job recommendation, previous studies showed that the best person-job fit is possible when the personal skills of a job seeker match with the requirements of a job offer [Den15]. Based on the person-job fit premise, we propose a framework for job recommendation based on professional skills of job seekers. We automatically extracted the skills from the job seeker profiles using a variety of text processing techniques. Therefore, we perform the job recommendation using TF-IDF and four different configurations of Word2vec over a dataset of job seeker profiles and job vacancies collected by us. Our experimental results show the performances of the evaluated methods and configurations and can be used as a guide to choose the most suitable method and configuration for job recommendation. The remainder of this paper is organized as follows. In Section 2, we briefly describe the natural language processing methods we are used in our experimental setup. In Section 3 we present our proposal, including a new dataset collected by us and the framework for job recommendation. In Section 4, we show our experimental results. Finally, in Section 5, we offer conclusions and directions for future work.

Proposed System:

In this section, we describe our framework for job recommendation. We narrow down the scope and focus on recommendation of job vacancies for Information Technology professionals acting in the Brazilian market. The proposed framework is composed by three stages: data collection, data preparation and recommendation.

Advantages:

- Company opportunity are available rapidly.
- Give useful information to the user and company staff.
- Job are available for all the one according to their knowledge base.
- It is a system that gives us recommendations based on the data that it has collected from us and other users like us, over a course of time.