Literature survey:

S. NO	PAPER NAME	JOURNAL NAME	DESCRIPTION
1.	Journal of King Saud University - Computer and Information Sciences	www.sciencedirect.com	Now a day's recommendation system take care of the issue of the massive amount of information overload problem and it provides the services to the candidates to concentrate on relevant information on job domain only. The job recommender system plays an important role in the recruitment process of fresher as well as experienced today. Existing job recommender system mainly focuses on content-based filtering to extricate profile content and on collaborative filtering to capture the behaviour of the user in the form of rating. Dynamic nature of job market leads cold start and scalability issues. This problem can be addressed by item-based collaborative filtering with a machine learning technique, it learns job embedding vector and finds similar jobs content-wise. Existing model in job recommender domain uses the confining model to address the cold start and scalability issue and provide better recommendation, but they fail to accept the complex relationships between job description and candidate profile. In this paper, we are proposing a Deep Semantic Structure Algorithm that overcome the issue of the existing system. Deep semantic structure modelling (DSSM) system uses the semantic representation of sparse data and it represent the job description and skill entities in character trigram format which increases the efficacy of the system. We are comparing the results to three variation of DSSM model with two different dataset (Naukari.com and CareerBuilder. com) and it gives satisfactory results. Experimental results shows that the DSSM Embedding model and its other variants are provides promising results in solving cold start problem in comparison with several variants of embedding model. We used Xavier initializer to initialise the model parameter and Adam optimizer to optimize the system performance.

2	Embedding-based Recommender System for Job to Candidate Matching on Scale	https://arxiv.org/pdf/2107.00221	we have constructed a fused-embedding via different levels of representation learning from raw text, semantic entities and location information. The clusters of fused-embedding of job and candidates are then used to build and train the Faiss index that supports runtime approximate nearest neighbor search for candidate retrieval. After the first stage of candidate retrieval, a second stage reranking model that utilizes other contextual information was used to generate the final matching result. Both offline and online evaluation results indicate a significant improvement of our proposed two-staged embeddingbased system in terms of click-through rate (CTR), quality and normalized discounted accumulated gain (nDCG), compared to those obtained from our baseline system. We further described the deployment of the system that supports the million-scale job and candidate matching process at CareerBuilder. The overall improvement of our job to candidate matching system has demonstrated its feasibility and scalability at a major online recruitment site.
3.	**IEEE EXPLORE :** University Based Job Recommender & Alumni System	https://ieeexplore.ieee.org/	With the advancement in technology, job seekers who among them are fresh graduates will tend to use e-recruiting to find opportunity and apply for jobs. One of the desires of any university is to be able to track the employability of their graduates. After graduating, they often require their graduates to fill an online system prepared by the university which functions to know whether they are getting jobs and to records their jobs details in order to analyze the university's graduates employability. Unfortunately, universities are unable to track down the progress of their graduate students in terms of their job application status. This work aims to propose a system that enables university to track their graduate students' job information via a mobile application. It also had a feature for students who have not secure a job position or wish to change their job to apply for available job opportunities after graduating. The profile of each student in the application is auto-created from information extracted from graduating students' file from university database which the student can then customize to include their job status. This application has the potential to help the universities in gathering information regarding their graduates employability and helps graduates in finding jobs.