

Predicting the Trends of Quality Oriented Jobs

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Abstract: *In this paper, it focusses on studying the job prediction using different deep neural network models. To predict the future jobs based on Dataset which contains the previous year's job opportunities, locations, packages, eligibility criteria and sectors. It focuses that in future which Technology place a major role to get the quality jobs in several sectors. And also analyse the required knowledge to get a qualified job based on eligibility. In future how the graduates get jobs based on their skills with the help of the dataset which collects from the different job sites like first Naukri, LinkedIn, Monster etc. The trends of quality-oriented jobs can be analysed and easily predict the future job opportunities by applying machine learning techniques.*

Keywords: Job Prediction, qualities, trends, recommendation, location

1. Introduction

In recent years, the strong development of Information Technology (IT) has led to a variety of job positions as well as the requirements of each type of IT job. With the diversity, students or job seekers find the job suitable for their knowledge and skills accumulated at the school or in the process of working are challenging. Also, the recruitment company must filter the profiles of the candidates manually to choose the people suitable for the position they are recruiting, causing a lot of time while the number of applications could be increased to hundreds or thousands. Therefore, we would like to study the task of IT job prediction to help them effectively address the aforementioned issues. Job prediction is a classification task using several techniques in machine learning and natural language processing trying to predict a job based on job descriptions including job requirements, knowledge, skills, interests, etc. In this paper, we focus on studying on job descriptions collected specifically from the online finding-job sites. In particular, we are interested in IT job descriptions. The task is presented as follows. The study will answer the questions, first, how data mining technique provides better classification in predicting the employability of IT graduates? Second, how the data model can be extracted to predict the employability of IT graduates? Lastly, how are attributes be identified to have a significant correlation to Information Technology employability?

Input: Given an IT job description collected from the online finding-job sites.

Output: A predicted job title for this description.

2. Literature Survey

[1] S Siddaraju, M Sivaranjani, V Sivasakthi, S Tamilselvan in 2020 suggested using KNN algorithm for predicting the Trends of Quality-Oriented Jobs to help and prepare for future jobs.

[2] Sara Mustafa, Iman Elghandour, Mohamed A. Ismail in 2018 suggested three main approaches have been employed to predict the execution time of queries in their paper 'A Machine Learning Approach for Predicting Execution Time of Spark Jobs', it supports execution of various types of workloads.

[3] Shreyas Harinath, Aksha Prasad, Suma H S, Suraksha A, Tojo Mathew in 2019 suggested predicting student placement status using two attributes, areas and CGPA results in their paper 'Student Placement Prediction Using Machine Learning'.

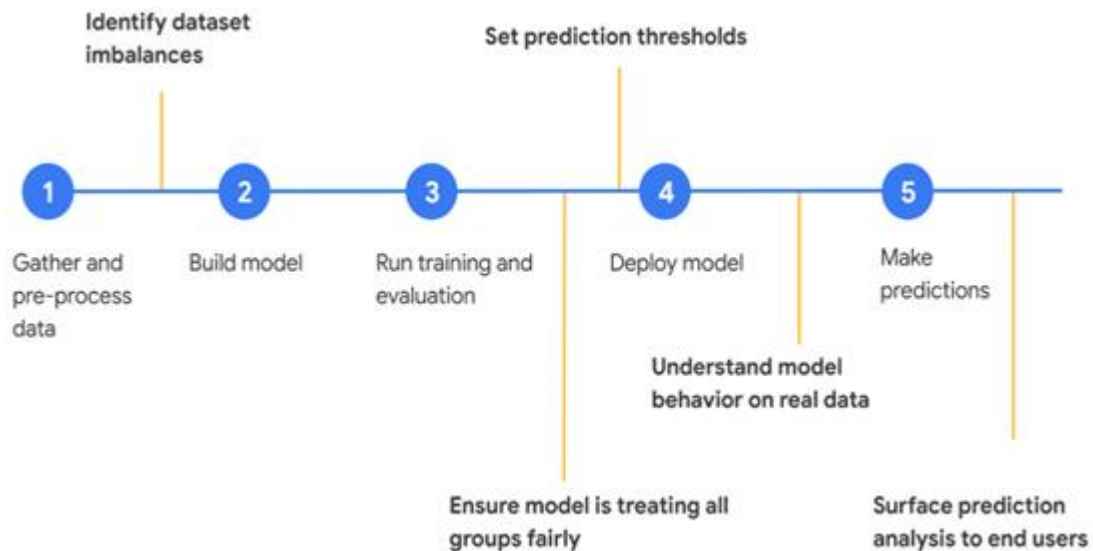
[4] K. Sripath Roy, K. Roopkanth, V. UdayTeja, V. Bhavana, J. Priyanka published a paper, 'Student Career Prediction Using Advanced Machine Learning Techniques' in 2018. This paper mainly concentrates on the career area prediction of computer science domain candidates.

[5] Kachi Anvesh, B. Satya Prasad, V. Venkata Sai Rama Laxman, B. Satya Narayana in 2019 published their idea 'Automatic Student Analysis and Placement Prediction using Advanced Machine Learning Algorithms', it is an automatic prediction based on the student's qualifications. The students can evaluate themselves about their suitable job role.

3. Proposed System

This illustrates that predict the job opportunities, Vacancies in the upcoming years based on the dataset collects from the different job sites or job portals like linked in, monster, first Naukri etc. The dataset contains the details of maximum 10000 companies. All the data are classified based on the company and job roles. To predict the scope in a job after 5 years. It shows the level of vacancies and opportunities in a visual format this with low, moderate and high.

The ability to predict the future jobs for the future generation students based on their skills, eligibility and their graduations.



4. Description

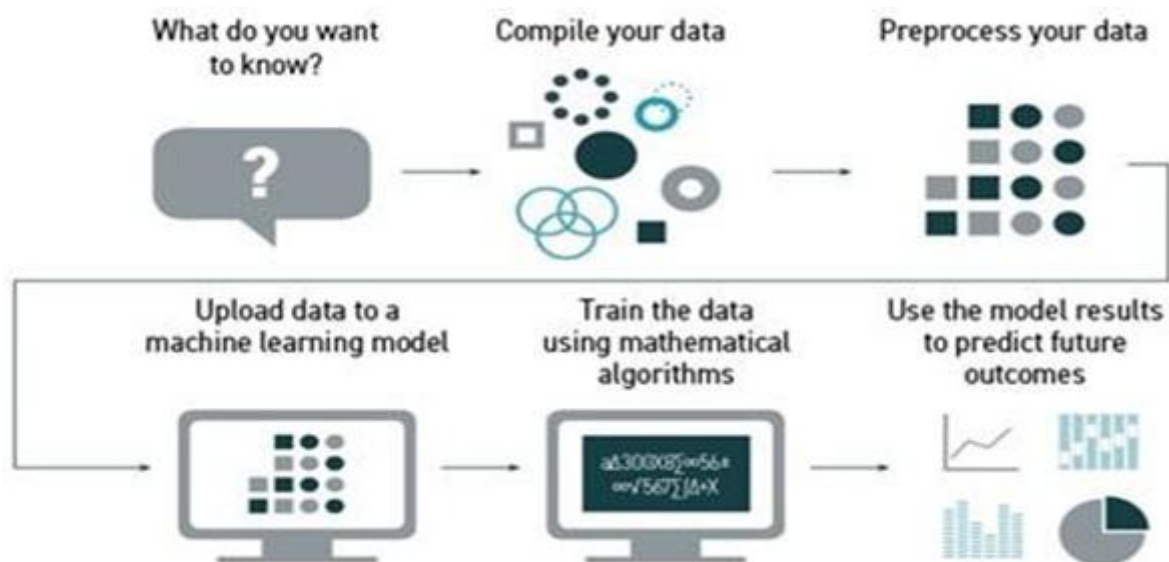
The first step is to collect the dataset from the various job sites. All the details are gathered and pre-processed. Dataset are separated based on the companies. Then the model has been created and built with the help of Data Mining technique. The model is used to predict the future jobs after 5 years. The inputs given to the built model are job title, current vacancies, layoff percentage, new job opportunities of various companies. Before deploy the model ensures that the model treats all the groups fairly. Deploy the model and set the prediction process. The output of the prediction process is the job opportunities and shows the level of vacancies with low, moderate and high.

Recent years have also seen major increase in the study with regards with prediction and discovery with models using

different types of EDM methods. Classification is one of the several data mining techniques that has become an interesting topic to the researchers because of its accuracy and efficiency for classifying the data for knowledge discovery. Research about student performance prediction was recently conducted [6] using different classification data mining model such as Decision Tree, Naïve Bayes and Multilayer Perception.

5. Methodologies

Asp.Net-.NET is a free, cross-platform, open-source developer platform for building many different types of applications. With .NET you can use multiple languages, editors and built-in support for dependency injection allow you to build applications that are easier to test and maintain.



SQL server- Microsoft server is a relational database management system developed by Microsoft. As a database server, it is a software product with the primary function of and retrieving data as requested by other software applications- which may run either on the same computer or on another computer across a network.

Dataset- In this paper, we use the dataset for IT job prediction. This dataset consists of maximum 10,000 companies' detail which contains job titles, current vacancies, layoff percentage, new job opportunities. And also contains the eligibility criteria, packages based on the job roles and the previous year data which are collected from

the different job sites. The dataset should be balanced one. The process of collecting the dataset is a difficult task because the dataset should be clear to run the built model.

Experiments- To predict the quality-oriented jobs based on the locations, sectors and eligibility criteria. This includes to predict the future trending technologies and required knowledge for the particular jobs, to predict that how many of them have jobs and how many of them doesn't get the jobs, in future how the graduates get jobs based on their skills with the help of the dataset which collects from the different job sites like first Naukri, LinkedIn, Monster etc. An Overview is explained in figure below. The process of compiling the data requires an understanding of what input given to the model. The model has been tested repeatedly and the errors are identified. The identified errors were cleaned and the model has ready to deploy. The predicting process has been started and the result will be visualized based on the given input. The performance of the accurate result is based on the clear dataset and perfect inputs.

6. Conclusion

The research on predicting the outcomes for future job opportunities is complex and more amount of data requires from the various job sites and companies. From the experimental results and the model built, it can be proposed that the algorithm is a simple and effective model and we proved that this method is the best performance for predicting the future job opportunities. It achieved that the best dataset was used to predict.

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