

Personality Prediction Using CV Analysis

Hemalatha Kallar, Student, SIES, Padmavati Vaidyanathan, Student, SIES,
Petchipriya Thirumalainambi, Student, SIES,
Sornamukhi Sudaroli, Student, SIES and Prof. Savita Lohiya, Faculty, SIES

Abstract— Our website which is based on personality prediction will make it easier for the companies to select the best candidate for their job profile. The website will include a test on aptitude and personality and the results obtained from this will help in selection of the candidate.

Index Terms – Personality Prediction; Machine Learning; Aptitude; Candidate; Company;

I. INTRODUCTION

Personality of a person is very important in every aspect of life. While recruitment process, personality of a candidate is tested in HR or final rounds, at that stage the HR won't be clear about the candidate. He will be confused to ask questions about the candidate. Nowadays, it is very important as companies want a best candidate for their profile.

Personality Prediction system is used to identify the personality of a person and it will show which job is best suitable for the person. This system enables an effective way for shortlisting the candidates from a large number of applicants. As the recruiter cannot judge a candidate by only his aptitude and technical knowledge. This system will test the person's aptitude, technical level as well as the personality of a person. A set of questions will be asked to the candidate.

Machine Learning is used to analyse the data given by the candidate. After analysing, the results will be shown to the candidate and the recruiter, which will be helpful for interviewing the candidate. As the HR will be knowing about the candidate's interest which will be easy for him to ask questions in the interview and select the right candidate for particular job profile which in turn provides perfect candidate for the organization.

II. LITERATURE SURVEY

1. Predicting personality from Twitter:

This paper[1] proposes that Social media is a place where people can share all the happenings in their life etc. By this prediction we will predict the mood, relationships of the person by all the information he has written in Twitter. The method by which a user's personality can be accurately predicted is mentioned. The description of the type of data collected, our methods of analysis, and the machine learning techniques that allow us to successfully predict personality is made. The discussion on the implications this

has for social media design, interface design and broader domains.

2. Personality Recognition on Social Media with Label Distribution Learning:

This paper[2] tells psychological construct of every human being. To reliably, recognize an individual's personality is very important; however, the traditional ways to assess personality through psychometric questions or interviews conducted by psychologists are expensive and less practical in social media domains, since they need the public to take various actions to co-operate. This paper proposes a method of big 5 personality prediction from microblog in Chinese language environments with a few machine learning paradigm named label distribution learning (LDL). 113 features are extracted from 994 active Sina Weibo users profiles and microblogs. 8 LDL algorithms and 9 non-trivial conventional machine learning algorithms are adopted to train the big five personality traits prediction models. Experimental results show that 2 of the proposed LDL approaches increase the performance with others in predictive ability, and the most predictive one also gains relatively higher running efficiency among all the algorithms.

3. Predicting Dark Triad Personality Traits from Twitter Usage and a Linguistic Analysis of Tweets

This paper[3] proposes Social media sites provides a great opportunity for Internet users, providing social scientists with a great opportunity to understand online behaviour. There are increasing a number of research papers related to social media, and a very few of which focus on personality prediction. To date, studies have always focused on the Big Five Traits of personality, but one area which is unanalyzed

is that of the anti-social traits of narcissism, Machiavellians and psychopathy, commonly referred to as the Dark Triad. This research explored the extent to which it is possible to determine anti-social personality traits based on Twitter use. It was performed by comparing the Dark Triad and Big Five personality traits of 2,927 Twitter users with their profile attributes and use of language. Research shows that, through the use of crowd sourced machine learning algorithms, we show that there are a great amount of relationships between these variables. Though the predictive models seems to be irrelevant to find personality traits they may still be of practical importance when models are applied to large group of people, such as to know the increment and decrement of population in social and antisocial traits.

4. A review of the existing state of Personality prediction of Twitter users with Machine Learning Algorithms:

This paper[4] proposes that Twitter is a most common social media platform with lots of users. The tweets shared by these users have currently attracted the attention of many researchers from fields. In this paper, we focus basically on predicting users personality from the analysis of posts shared by the user. Anyhow, different methodologies have been used to predict a user's personality from tweets but there are some issues which needs more focus.[4] The main goal of the paper is to check the current state of this research and to analyse the purpose of predicting personality from tweets by checking the literature done till now and provide an overview of the different measures taken to reduce the problems faced by researchers in this field.

III. EXISTING SYSTEM

In the existing system, which applicant was appropriate for required employment were chosen dependent solely on CV's as it were. In this system they focused on only qualification, based on qualification people were selected which led to low performance as compared to other people who were technically, logically and emotionally sound. The drawback of this system are it requires large memory space as it stores data related to CV's and may provide incorrect data.

IV. PROPOSED SYSTEM

Personality classification is one of the problems considered by personality psychology, a branch of psychology. The focus of this field is the study of personality. According to that study [4], personality can be defined as a dynamic and organized set of characteristics of a person, which have a unique influence on cognition, motivation and behaviour of that person. In this paper the problem of personality prediction is based on answers given by the candidate.

This system will automatically determine the key skill characteristic by defining each expert's preferences and ranking decisions. The presented system automates the processes of requirements specification and applicant's ranking. It produces ranking decisions that were relatively highly consistent with those of the human experts. This system will enable a more effective way to short list submitted candidate CV's from a large number of applicants providing a consistent and fair CV ranking policy.

This system is to predict the personality with the help of a simple aptitude test along with psychometric test and also decide his strong and weak subjects. Using this a report will be generated and with the help of the report, company will be able to select the best student for their profile. This system will be a interface between the recruiters and the candidate.

A. Support Vector Machine

The reason behind the support vector machine approach is that it gives 63 percent accuracy for the prediction system, whereas other classifiers give just more than 50 percent.

Support vector machine (SVM) is a nonlinear classifier which is frequently reported as producing superior classification results compared to other methods. The idea behind the method is to nonlinearly map the input data to system's trained data set, where the data can be linearly separated, thus providing great classification (or regression) performance. One of the bottlenecks of the SVM is the large number of support vectors used from the training set to perform classification tasks.

SVM working is as follows :

1. Get answers from the system.
2. Compare the answers with the dataset.
3. Predict user personality type.

V. RESULT ANALYSIS

Analysis based on SVM

Softmax activation is used to analyse the Machine Learning output. The data generated are real time. Increase of the data leads to more accuracy. As the accuracy level is more than 60 percent.

VI. CONCLUSION

Personality Prediction analysis is started its way in recent times. To extract the personality of the candidate during a recruitment process is very useful to interview a person. This paper discusses the process for personality prediction.

VI. REFERENCES

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