Personality Prediction System through CV Analysis

¹Namrata Ramesh Satelkar, ²Arati Ashok Sawant, ³Madhuri Vishnu Vengurlekar, ⁴Vaibhavi Ganpat Sawant

^{1,2,3,4}UG in Computer Engineering

¹ SSPM college of engineering, Kankavli, Maharashtra, India

Abstract: This system can used in many business sectors that may require expert candidate. This system will reduce workload of the human resources. This system will help the human resource to select right candidate for desired job profile, which in turn provide expert workforce for the organization. Admin can easily shortlist a candidate based on their online test marks and select the appropriate candidate for particular job profile. This will enable a more effective way to short list submitted candidate CVs from a large number of applicants providing a consistent and fair CV ranking policy, which can be legally justified. Using Natural Language Processing (NLP) can be defined as a process that enables a machine to become more like a human, hence slashing the distance between machines and humans. In this field challenges like understanding the NLP i.e. permitting the machines to understand the natural language of humans are faced. This system will help the HR dept. to easily shortlist the candidate based on their CV ranking policy. This system will focus not only in qualification and in experience but also focuses on other important aspects, which are required for particular job position.

Index Terms: personality prediction system, scan cv, NLP system

I. INTRODUCTION

INTRODUCTION

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, which can be legally justified. This system will rank the experience and key skills which is required for particular job position. The system will rank the CV's based on the experience and other key skills which are required for particular job profile. System will help the HR department to easily shortlist the candidate based on their CV ranking policy. This system will not focus only in qualification and experience but also focuses on other important aspects which are required for particular job position. This system will help the human resource dept. to select right candidate for particular job position which in turn provide expert workforce for the organization. Candidate here will register him/herself with all its details and will upload their own CV into the system which will be further used by the system to shortlist their CV [15]. Candidate can also give the online test which will be conducted on personality questions as well as aptitude questions. After completing the online test, candidate can view their test results in graphical representation with their marks [13].

II. PROBLEM STATEMENT

Designing this system to extract information from unstructured resumes and transform that information to structured format. And ranking those resumes is based on the information extracted, according to the skill sets of the candidate and based on the job description of the company.

III. HOW DOES IT WORKS

In this personality prediction system, which candidate is suitable for required job we can take decision by using candidate CV's. In this system we will focus not only qualification, based on tests we can select the person for particular job position. Which will leads to performance of the candidate is low compared to other knowledge persons. In existing systems candidates are shortlisted only based on their CV's They do not consider their aptitude, personality for shortlisting the candidate.



IV. MODULES

This personality prediction system comprises of two major modules with their sub-modules as follows: Admin:

1. Login: Admin need to login with its valid ID and Password to access the below modules.

2. Add personality Questions: Here, admin can add all personality related questions.

3. Add Aptitude Questions: Admin can add aptitude questions of the interest of the company to judge the candidate's capability.

4. Add Job Details: Admin or any authorized person can add the requirement or job details on behalf of company. System allows admin to job details such as position, experience, salary, etc.

5. Preferred CV's: Admin will add some CV's which are preferable and will be used to shortlist the scanned CV's.

6. Scan CV's: Admin can scan CV's received from candidates which will undergo the process of shortlisting the CV's. Based on the company requirement, the candidate who have submitted their CV to admin, will be uploaded by the admin into the system.

7. Shortlisted CV's: Here, all the shortlisted CV's of candidates will be displayed. The shortlisting of CV's is performed by system itself.

8. View Candidates: Can view all the registered candidates with its details.

9. View Result: Can view the results of individual candidate, which can be easy to admin or concern person to select a desired candidate.

4 Candidate:

1. Registration: Candidate must fill up registration form and create login credentials in order to get the access to the system. While registration process, candidate need to upload their CV.

2. Login: Candidate need to enter valid ID and Password to access the below given modules.

3. Give Test: After successful login, candidate can now proceed with online test based on personality and aptitude.

4. View Results: Once the test is completed by the candidate, the results will be displayed.

V. PROPOSED SYSTEM

The proposed system produces ranking decisions that were relatively highly consistent with those of human experts. This system will enable a more effective way to short list submitted candidate CV's from a large number of applicant providing a consistent and fair CV ranking policy, which can be legally justified. System will rank the experience and key skills required for particular job position Than system will rank the CV's based on the experience and key skills which are required for particular job profile. This system will help the HR department to easily shortlist candidate based on their CV ranking policy. This system will focus not only in qualification and experience but also focus on other important aspects like aptitude and personality which are required for particular job position.

VI. METHODOLOGY

In this step are as follows [5]:

(NLP) Natural Language Processing is the area of application and research that learn how to computers can be used to understand and manipulate natural language text or speech to do useful things. NLP is a branch of computer science and artificial intelligence (AI) which is concerned with interaction between computers and human languages.

Natural Language Components-

1) NLU (Natural Language Understanding) :

Natural language understanding (NLU) is a unique category of natural language processing that involves modeling human reading comprehension or in other words, parses and translates input according to natural language principles.

2) NLG (Natural Language Generation) :

Natural language generation (NLG) is a particular Artificial Intelligence complete task that involves generating language from non-language inputs. Some experts might be refer to a natural language generation application as a "translator" of text or other informational formats into the spoken language.



Literature Survey

Gayatri Vaidya[3] This system will be constructed by first constructing a dataset consisting of photographs, quality factors, personality measurement and intelligence measurement for building an end to end network for personality prediction where self-reported personality traits can be predicted reliably from an image by Discrete Methodology. The main goals of the proposed system is to distinguish internal properties of the person from overt behaviors, and to show the results using chart or in percentage.

Mayuri Pundlik Kalghatgi[5] This work analyzes social media data to predict significant personality traits, i.e. qualities or characteristics are specific to an individuals, using the Big Five Model. A parallelism between an individual's personality traits his/her linguistic information is explored for analytics. The Big Five model enables the identification of personality traits through linguistic information. This reveals the personality traits which can be applied to various domains like business intelligence, marketing and psychology. Thus this work provides a personality prediction system based on Big-Five model, which can predict the traits of an individual using the group of tweets posted by him.

Advantage

- 1. This system can be used in many business sectors that may require expert candidate.
- 2. This system will reduce workload of the human resource department.
- 3. This system will help the human resource department to select right candidate for particular job profile, which in turn to provide expert workforce for the organization.
- 4. Admin or concern person can easily shortlist a candidate based on their online test marks and can select appropriate candidate for desired job profile.

Disadvantage

1. This system requires large memory space when it stores data related to CV's.

2. Requires an active internet connection.

VII. CONCLUSION

This system will help the human resources department to select right candidate for particular job position, which in turn provide expert workforce for the organization. This system will help to get shortlisted CV's according to their ranking. Ranking is based on their test result and experience, qualification etc. This system will reduce work of the human resource department.

REFERENCES

1. Barrick M. R. Mount. M. K proposed big five personality dimensions for any person in 1991 to determine the personality of any reason.

2 Barrick, Murray R," The Personality Dimensions and job performance".

3 Gayatri Vaidya, Pratima Yadav, Reena Yadav, Prof. Chandana Nighut, "Personality Prediction By Discrete Methodology", IOSR Journal of Engineering (IOSRJEN) ISSN (e): 2250-3021, ISSN (p): 2278-8719 Volume 14, PP 10-13

International Conference on Innovative and Advanced Technologies in Engineering

4 Barrick, M. R., Mount, M. K. (1991). Big Five personality dimensions and job performance: A meta analysis. Personnel Psychology, Vol. 44, pp. 1-26.

5 Mayuri Pundlik Kalghatgi, Manjula Ramannavar, Dr. Nandini S. Sidnal, "A Neural Network Approach to Personality Prediction based on the Big-Five Model", International Journal of Innovative Research in Advanced Engineering (IJIRAE) ISSN: 2349-2163 Issue 8, Volume 2 (August 2015).

6 K.Lindsted, K.D., Tsai, S.-Y. Personality and Individuals Differences, 44, 656-667.

7 Schmidt, F.L., Hunter, J.E.(1981). Employment testing: Old theories and new research findings. American Psychologist, Vol. 36, pp. 1128-1137.

8 Diseth, A. (2003). The Personality and approaches to learning as predictors of academic achievement. European Journal of Personality, 17, 143-155.

9 Digman.J.M.(1989). Five Robust Trait Dimensions: Development, Stability, and Utility. Journal of Personality, 57(2), 195-214. 10 Di Fabio, A., Busoni, L. (2007). Fluid intelligence, personality traits and scholastic success: Empirical evidence in a sample of Italian high school students. Personality and Individual Differences, 43(8), 2095-2104.

11Bidjerano, T., Dai, D.Y. (2007). Relationship between the big-five model of personality and self-regulated learning strategies. Learning and Individual Differences, 17(1), 69-81.

12shaver.Phillip.R.is also proposed personality traits which are useful for ranking any CV that means this personality traits are there in CV.

13 The "Personality dimensions and job performance" includes what is the important of the personality dimensions by Barrick Murray. R.

14<u>www.youtube.com/watch?v=7jlydaluzek</u>.

15http://ieeexplore.ieee.org/document/5566454/