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A Review on Resume scanning using Python

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ABSTRACT – Finding suitable candidates for an open role could be a daunting task, especially when there are many applicants. It can impede Team progress for getting the right person on the right time. An automated way of “Resume Classification and Matching” could Really ease the tedious process of fair screening and shortlisting, it would certainly expedite the candidate selection and decisionmaking process. This system could work with a large number of resumes for first classifying the right categories using different Classifier, once classification has been done then as per the job description, top candidates could be ranked using Content-based Recommendation, using cosine similarity and by using k-NN to identify the CVs that are nearest to the provided job description.

KEYWORDS: Docopt, Hiring Pattern, Human Resources, PyPDF2, Python, Resume.

I. INTRODUCTION

Talent acquisition is an important, complex, and time-consuming function within Human Resources The Sheerscale of Indias market is overwhelming . Not only is there a staggering one million people coming Into the job market every month, but there is also huge turnover. As per LinkedIn, India has the highest percentage of The workforce that is “actively seeking a new job”. Clearly, this is an extremely liquid, massive market but one That also has many frustrating inefficiencies. The most challenging part is the lack of a standard structure and format For resume which makes short listing of desired profiles for required roles very tedious and time-consuming Effective screening of resumes requires domain knowledge, to be able to understand the relevance and applicability Of a profile for the job role. With a huge number of different job roles existing today along with the typically large Number of applications received, short-listing poses a challenge for the human resource department. Which is only Further worsened by the lack of diverse skill and domain knowledge within the HR department, required for effective Sheer scale of Indias market is overwhelming .Not only is there a staggering one million people coming Into the job market every month, but there is also huge turnover. As per LinkedIn, India has the highest percentage of The workforce that is “actively seeking a new job” Clearly, this is an extremely liquid, massive market but one that also has many frustrating inefficiencies. The most challenging part is the lack of a standard structure and format For resume which makes short listing of desired profiles for required roles very tedious and time-consuming Effective screening of resumes requires domain knowledge, to be able to understand the relevance and applicability Of a profile for the job role. With a huge number of different job roles existing today along with the typically large Number of applications received, short-listing poses a challenge for the human resource department. Which is only further worsened by the lack of diverse skill and domain knowledge within the HR department, required for effective

II. LITERATURE REVIEW

Resume Ranker, Nileema Pathak IEEE March 2018 Human Resource (HR) agencies use various head hunting tools and online search methods. These search methods connected with the database of millions of resumes. These are the simple search engines who parses the resumes against the given keywords and offers the best match results. The list of the searching keywords is usually prepared by the HR after reading the job description several times. The HR downloads these searched resumes and does the manual work by opening and reading the resumes. By this way, HR person tries to find the resumes which are best match to the Job Description. This is a cumbersome process and requires reasonable time and multiple discussion with the candidate before offering the resume to the client. Usually, due to the complexity of the database, many efficient resumes missed out from the search results or not considered due to stringent time lines of closure.

: A Job Post and Resume Classification System for Online Recruitment , Abeer Zaroor, and IEEE 2021

To Overcome the abovementioned limitations, we present a hybrid approach to classify resumes and their corresponding job post by utilizing an integrated occupational categories knowledge base. The exploited knowledge base assists in i) classifying resumes and job offers under their corresponding occupational categories and ii) automatically ranking applicants that best match the announced offers.

III. AN INTEGRATED E-RECRUITMENT SYSTEM FOR CV ELEANNA KAFEZA, IEEE2015

on-line recruitment systems, candidates typically upload their CVs in the form of a document with a loose structure, which must be considered by an expert recruiter. This incorporates a great asymmetry of resources required from candidates and recruiters, resulting in candidates uploading the same CV in numerous HR agencies that become overwhelmed with thousands of CVs. In this work, we follow a different approach in the CV submission process, which is detailed in this section, along with the CV modelling in HR- XML format.

Contour shape and color detection using opencv python Raghav puri, IEEE-2018

OpenCV is Open Computer Vision Library [4]. It was initially launched in 1999 by Intel. With more updates, it has been modified since then to aim for the real-time computer vision. This library has been written under programming languages like C and C+. It can be easily run on operating systems Windows and Linux. This library can be easily interface with programming languages like Python, MATLAB, Ruby and others as well. Along with Numpy [6] and Python image processing (shape & color detection) can be performed at ease.

Resume Parsing with Named Entity Clustering Algorithm IEEE-2014

The concept of the Internet of Things (IoT) ecosystem is presented in this article. There is a need to connect networks of sensors and smart items in such a way that they can intelligently interact. An architecture for an Autonomous Vehicles prototype within the IoT ecosystem is proposed. The GPS-enabled device is located indoors at the time frame a request is placed, hence, the GPS signal can be low or poor, and the users. The position estimation of passengers and vehicles can be made through a combination of the GPS data and the Wi-Fi receiver's position estimation, as a more accurate outdoors method and as an alternative to low GPS signaling indoors.

IV. PROPOSED SYSTEM

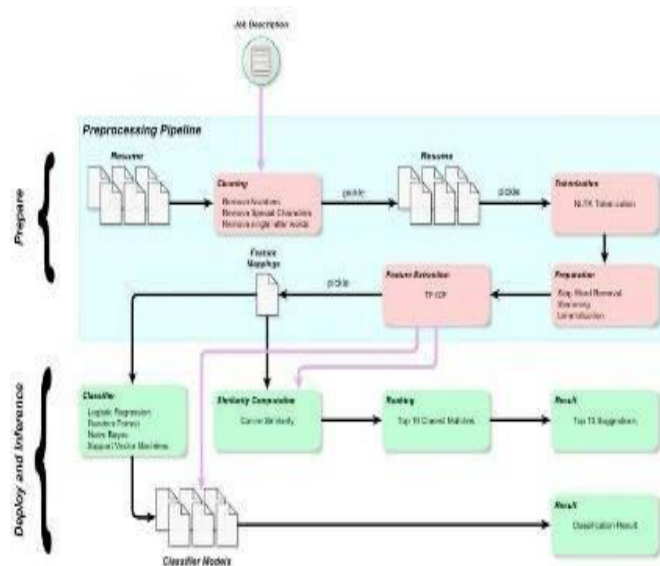


Fig -1: Block Diagram of the proposed system

We have started our experiment with RF classifier, the extracted tf-idf features set is fed into the RF classifier to predict the resume category. The RF classifier yielded an accuracy of 38.99% on 10-fold cross-validation. The obtained Results were not satisfactory and hence we used another popular classifier named "NB" for this task. NB classifier Predicted the categories of resume with an accuracy of 44.39%, which was improved than the earlier classifier's accuracy (RF). However, 44.39% accuracy of NB classifier indicated that more than 50% of the resume was misclassified. We have used another classifier "Linear SVM" on the same data and achieved 78.53% accuracy. In order to improve The model accuracy, LR classifier was used and obtained 62.40% of accuracy which was lower than that of accuracy Of "Linear SVM" classifier. The accuracy of all the models was calculated using 10 fold cross-



validation, the average Accuracy obtained from the classifiers

V. CONCLUSION

Huge number of applications received by the organization for every job post. Finding the relevant candidate's application from the pool of resumes is a tedious task for any organization nowadays. If an Industry provides a large number of resume, then Industry specific model can be developed by utilizing the proposed approach. By involving the domain experts like HR professional would help to build a more accurate model, feedback of the HR professional helps to improve The model iteratively.

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