Machine learning technique for recruitment of candidates using social network

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ABSTRACT

Machine learning is becoming a pervasive technology as it trains the computer to learn on its own from previous data.
Hiring unique skill-set candidates for an organization is a time consuming task. This paper presents machine learning technique to hire various candidates.
The work of recruiter is to hire candidate for the company which needs required skill-set employees. The application collects candidates information from the social network..

Keywords

Social Networks; Recruiter; Influentiality; Node

1. INTRODUCTION

Human resource management has been the crucial function of any organization. Among the HR practices, recruitment is the chief function where employees are brought into the organization. Organizations need to map carefully the available human resources, while recruiting because they establish competitive advantage for the organization. Social networks offer entry to the knowledge concerning the prospective job candidates. Within the public or social network the cost to evaluate and reach all the nodes is usually large in amount and sometimes outcomes might not be acceptable. In this project we propose a Recruitment Graph System for social media. The employee for which the recruiter is in search of might be present in his organisation. But he wouldn't not be free at that time.
It might be possible that the same Skillset nodes may exist in professional communities of repertoire node's network,. The project retrieves the skilled details of the employee's nodes to search out resembling nodes. GroupCentrality for the Top few similar nodes will be calculated, of various suggested nodes. Recruiter will

be suggested with similar node of high group centrality.

The rest of the paper is organized as follows: The existing and proposed system, Feasibility study, Influentiality calculation for recommended nodes. Details of the experiments and the results obtained are discussed. Finally, conclusions and references are presented.

2. LITERATURE SURVEY

EXISTING SYSTEM

Nowadays career fairs are facing tough competition in social networks, mainly a lot of companies have their own pages on LinkedIn websites, where job hunters can know about the company standards, their requirements and skillsets that have been asked. Social networking websites are also become effective job searching tools. Hence Recruiters can search for respective employees where they have a large resource pool.

3. PROPOSED WORK

The proposed Graph system identifies employee with unique skillSet for the purpose of appointing. The method to get the person's node using data mining in social media will be as follows: Recruiter has to upload the job Specification to which he wants to employ. Recruiter will have to provide the priority decision in detail to hire the person which is dependent on Job Description. Sometimes there might be chances where the required employee may be present in his company and he wouldn't be free, literally who is working on project.. The repertoire node could have been connected with same skillsets nodes which are in social media i.e, LinkedIn community.. Dataset will be

collected by recruiter. The model chooses the uppermost few resembling nodes based on similarity of the content. Group Influentiality or centrality is calculated for suggested nodes for each resembling nodes selected. The Node for which highest Group Centrality occurs will be proposed to hire.

4.   FEASIBILITY STUDY

FeasibilityStudy provides complete picture for Qualitative & Quantitative analysis of the application which is being developed during the initial design of the application.
It is all about getting the right information based on resources, and total time taken for the completion of the project.

TECHNICAL FEASIBILITY

The tools are to be set before it is being used properly before the application is being developed. The tools and technologies used are not to be changed frequently which varies the financial cost already estimated. The team needs to have the complete details of how the tool exactly works.

ECONOMIC FEASIBILITY
This feasibility gives the complete details of the financial status of the application which tells about the total cost and it its benefits of the application developed. The tools and resources needs to be utilized properly for the application developed. Unnecessary tools are not to be purchased for the application development which might also cause loss when the team members are unaware of using the tool which is being purchased.

OPERATIONAL FEASIBILITY
The application developed should be compatible with all the major browsers. No ambiguity is to be caused when the user uses the application. It overall defines whether the application developed has met the requirements given by the client.
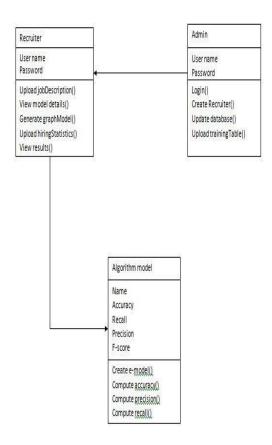
CLASS DIAGRAM

Table 1. Training dataset prepared based on experience

Experience(in years)	Matching	Priorities for hiring
1	0	999
1	5	999
1	10	999
1	15	999
2	51	3
2	53	3
2	55	3
2	57	3
2	13	4
3	24	999
3	26	4
3	29	4

Table 2. Influentiality calculated on recommended node

Node ID	Recommended Node IDs	Influentiality
3	5,4,7	0.1350
11	19	0.0406
13	11,13,14,15	0.1642

5. CONCLUSION

The project proposes a recruitment graph model for appointing distinctive competencies by using social media mining. This model will make out the priorites to hire majorly all community nodes of the repertoire node. The proposed random forest algorithm will calculates group centrality for most recommended nodes. This happens by selecting top prior nodes. This model helps the HR of any company to hire the candidates according to his requirements. The effectiveness of projected methodology is proven by the experimental results for Four Datasets

6. FUTURE ENHANCEMENT

- Recommendation accuracy can be increased
- Improvement of sentiment scrutiny algorithm can be done
- Dataset can be extracted from various other social media networks

7. REFERENCES

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