

# Chapter 19

## RezFind: NLP–Based Resume Shortlisting

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### ABSTRACT

*A typical job posting on any job-hunting portal like LinkedIn, Naukri, Indeed, etc., will receive many resumes. Screening a resume manually is a tedious process involving huge costs. Screening resumes also consumes a lot of time for the hiring managers. Sometimes, because of the massive numbers, a few qualified resumes don't get noticed, leading to considerable loss to both the company and a loss of opportunity for the applicant. This study uses advanced natural language processing to automate the resume screening process. It also describes a data mining method to extract relevant information like the eligible applicant's name, contact, and email. RezFind provides a unique scoring system that gives a similarity score between the job description and the resume to keep it very specific to the job posting instead of a generic screening. This process allows keeping the uniqueness of each job role, and the screening quality increases by having a specific job description.*

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## **INTRODUCTION**

Job hunting is one of the most frustrating process an individual can ever experience, but selecting a right individual for the job can be an equally excruciating process for the recruitment team. The losses the company will have to bear are immeasurable if an incorrect individual is hired for the job. The losses that incur may include manpower, time, money and so on. The growth of technology, world of information and multimedia has changed the entire recruitment process. Web job portals and social media hiring have brought drastic change in the job hunting and hiring process. LinkedIn is currently the largest online job portal with an audience reach of 706 million users. LinkedIn users by country continue to increase year over year (Bharadwaj et al., 2022). Over 50 million companies have their presence in LinkedIn and 90% of recruiters search for job applicants on LinkedIn. The most jobseekers are on portals like LinkedIn, Stack overflow, GitHub, Facebook and other places. 70% of managers said they have had success hiring candidates through social media.

### **What is Resume Screening?**

The most crucial responsibility for any corporation is selecting the right candidates for each position since the right candidates can tremendously speed up business growth. We shall look at an example of such a business, known as the IT department, in this section. We all know that the IT department falls short of meeting the demands of expanding markets. Due to the volume of large projects with large corporations, the team does not have time to examine resumes and select the best CV based on their needs.

To tackle this sort of difficulty, the corporation always hires a third party whose job it is to create the resume according to the specifications. Hiring Service Organization is the term given to these businesses. It all comes down to the information resume screen. Resume screening is the process of picking the greatest people, assignments, online coding contests, and many other things. Due to a shortage of time, large organizations may not have enough time to open resumes and must rely on the assistance of another company. For which they must pay a fee. This is a significant issue. To address this issue, the business intends to use a machine learning algorithm to begin the job of the resume screen itself.

### **Why do we Need Resume Screening?**

Companies take out internet advertising recommendations, and carefully sift through them for each recruiting Companies sometimes submit thousands of resumes for each job ad. Companies that acquire resumes through internet marketing categorizes such resumes based on their needs. Companies' close ads and online application sites after collecting resumes. The gathered resumes are then forwarded to the Hiring Team(s). It becomes quite tough for recruiting teams to read resumes and choose the best one based on the requirements. It is not an issue if there are just one or two resumes, but it is difficult to sift through 1000's of resumes and select the best one. To address this problem, we would scan and screen the resumes with the help of machine learning using python.

### **Resume Shortlisting Using Artificial Intelligence**

Resume screening can be automated using Artificial intelligence. Concepts like text mining and natural language processing algorithms can play a vital role in development of programs that can be capable

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