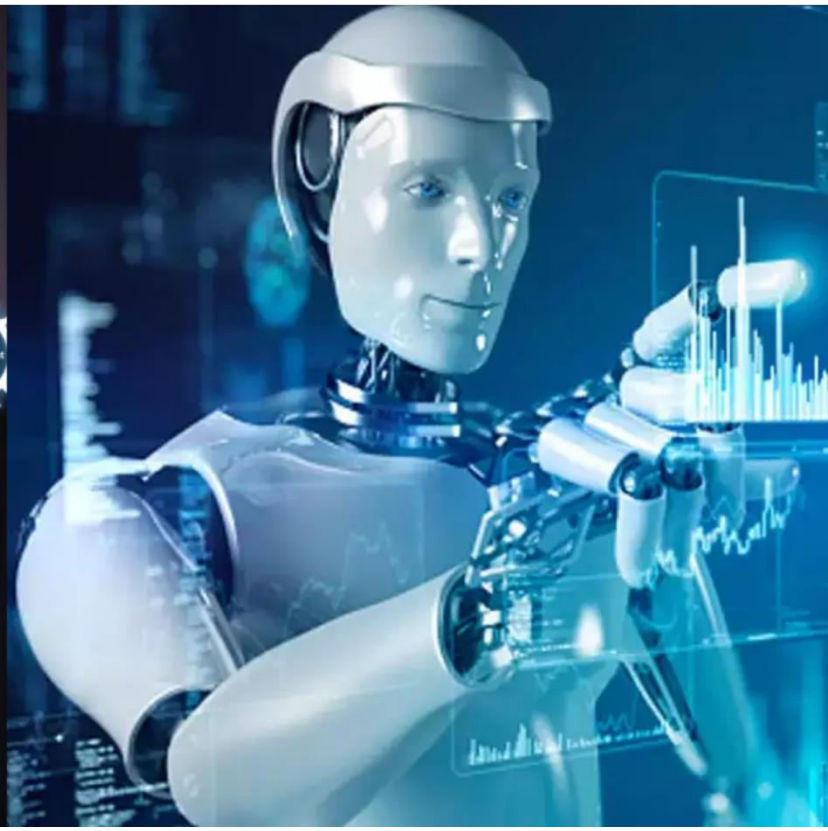
IJIRSET
International Journal of Innovative Research in Science | Engineering | Technology

ISSN(O): 2319-8753
ISSN(P): 2347-6710

International Journal of Innovative Research in Science Engineering and Technology (IJIRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)



Impact Factor: 9.935

Volume 15, Issue 5, May 2026

International Journal of Innovative Research of Science, Engineering and Technology (IJIRSET)

Impact Factor 9.935

|www.ijirset.com |A Monthly, Peer Reviewed & Refereed Journal| e-ISSN: 2319-8753| p-ISSN: 2347-6710|

Volume 15, Issue 5, May 2026

|DOI: 10.15680/IJIRSET.2026.1505137|

Analyzing Web Content Acquisition in Carrier Content Aggregation

Gitanjali Pokale[1], Ashwini Gaikwad[2], Kaveri Patare[3], Prof. H. D. Gunjal[4]

Students, Department of Computer Engineering, Vishwabharti Academy's College of Engineering, Ahmednagar, Maharashtra, Savitribai Phule Pune University, Pune, India[1,2,3]

Asst. Professor, Department of Computer Engineering, Vishwabharti Academy's College of Engineering, Ahmednagar, Maharashtra, Savitribai Phule Pune University, Pune, India[4]

ABSTRACT: In The project is a dynamic and versatile system designed to aggregate web content efficiently. This innovative framework leverages cutting-edge technologies to collect, organize, and present diverse online content in a unified and user-friendly manner. By enabling the aggregation of web data from various sources, including websites, social media, and news feeds, this project empowers users to access a comprehensive and curated stream of information. Whether for research, content curation, or staying informed, the framework simplifies the process of collecting and managing web content, enhancing the accessibility and utility of online information. The Carrier Content Aggregation and Preference Finding System is a comprehensive project designed to streamline and enhance the user's carrier content consumption experience. This system aggregates diverse carrier content from various sources, such as CVs, and Candidates, and employs advanced algorithms like Keyword Extraction & Text Mining to understand user preferences. Through user interactions and feedback, it adapts and recommends personalized content tailored to individual tastes and interests. This project not only simplifies content discovery but also offers users a more engaging and relevant carrier experience in an increasingly digital world.

KEYWORDS: Content Acquisition, Web Content Aggregation, Data Mining, Keyword Extraction & Text Mining, etc.

I. INTRODUCTION

The main motive of this project becomes to construct trust evaluation Mechanism for consumer Recruitment in community Crowd-Sensing. So as to be built on Google's Cloud. Big enterprises and head-hunters get hold of numerous lots of resumes from activity candidates each day. HRs and bosses go through loads of resumes manually. Resumes or Profiles are unstructured files and feature generally ranges of various formats. As a result, manually reviewing more than one profile is a very time consuming techniques. How to ensure you have the correct Candidate in the right jobs on the proper time. That is a considerable hassle confronted by way of massive agencies nowadays in the market. Now a day's many task portals are to be had however the fundamental trouble in available device are it required manual efforts for both candidates and Employers. Candidate has to offer entire records in given text filed and organization also desires to use many filters to select the candidate. Even though employer has implemented many filters he might get heaps of resume even going via it and choosing applicants is very inefficient and time ingesting mission. Some costly extraction systems are available within the marketplace that still do the quest on key-word foundation and has many extraction boundaries like forcing applicants to fill templates and preserve updating the templates as in keeping with job profiles. Not an unmarried smart device available within the market which has advantages of information mining in addition to in an effort to take consideration of information found in social networking.

II. RELATED WORK

An classification paradigm is a data mining framework containing all the concepts extracted from the training dataset to differentiate one class from other classes existed in data. The primary goal of the classification frameworks is to provide a better result in terms of accuracy. However, in most of the cases we cannot get better accuracy particularly for huge dataset and dataset with several groups of data. When a classification framework considers whole dataset for training then the algorithm may become un useable because dataset consists of several group of data. The alternative way of making classification useable is to identify a similar group of data from the whole training data set and then

International Journal of Innovative Research of Science, Engineering and Technology (IJIRSET)

Impact Factor 9.935

|www.ijirset.com |A Monthly, Peer Reviewed & Refereed Journal| e-ISSN: 2319-8753| p-ISSN: 2347-6710|

Volume 15, Issue 5, May 2026

|DOI: 10.15680/IJIRSET.2026.1505137|

training each group of similar data. In our paper, we first split the training data using k-means clustering and then train each group with Naive Bayes Classification algorithm. In addition, we saved each model to classify sample or unknown or test data. For unknown data, we classify with the best match group/model and attain higher accuracy rate than the conventional Naive Bayes classifier.

III. PROBLEM STATEMENT

When it comes to recruiting and hiring, resumes are still the coin of the realm. While the Internet has lived up to its promise of opening access to new sources of talent, it has also made it much easier for job seekers to apply for jobs. The result has been a profusion of resumes – it's not uncommon for employers to receive hundreds or even thousands every time they post a job. Recruitment professionals need robust tools to help them take control of the resume flow, capture relevant information automatically, and upload candidate data directly to their database or applicant tracking system as efficiently as possible.

IV. PROPOSED SYSTEM

HRs and Managers go through a hundreds of resumes manually. Resumes or Profiles are unstructured documents and have typically number of different formats (eg: .doc, .txt).As a result, manually reviewing multiple profiles is a very time consuming processes. How to ensure you have the Appropriate Candidate in the right jobs at the right time. This is a significant problem faced by large companies today in the market. Automated Resume Extraction and Candidate Selection System is a product which can be best suited for any organization's recruitment process. The system will be robust enough which will automatically extract the resume content and store it in a structure form within the Data Base. Classification algorithm (Naïve Bayes) will be run on the profiles to identify profile Categories or classes. Also the employer can specify his criteria and also decide the importance level. As the internet grows, amount of electronic text increases rapidly. This brings the advantage of reaching the information sources in a cheap and quick way. Keywords are useful tools as they give the shortest summary of the document. But they are rarely included in the texts. There are proposed methods for automated keyword extraction. This paper also introduces such a method, which identifies the keywords with their frequencies and positions in the training set. It uses Naïve Bayesian Classifier with supervised learning.

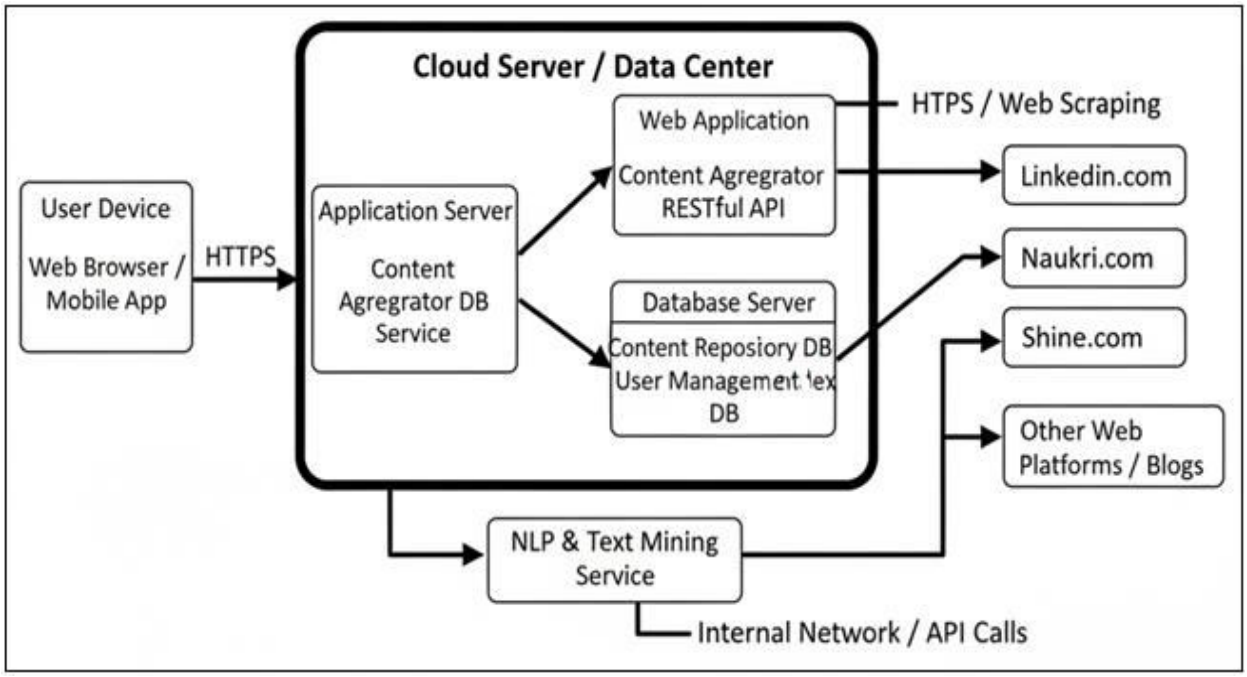


Fig.1: Proposed System Architecture

International Journal of Innovative Research of Science, Engineering and Technology (IJIRSET)

Impact Factor 9.935

|www.ijirset.com |A Monthly, Peer Reviewed & Refereed Journal| e-ISSN: 2319-8753| p-ISSN: 2347-6710|

Volume 15, Issue 5, May 2026

|DOI: 10.15680/IJIRSET.2026.1505137|

V. RESEARCH METHODOLOGY

The above fig.1 illustrates the system architecture; it carried the overall classification process on sentiment analysis using movie review data set. Initially pore-processing analyzes the opinions from syntactical point of view and original syntax of sentence is not disturbed. In this phase, the several techniques like POS tagging, Stemming and Stop word removal are applied to data set for noise reduction and facilitating feature extraction.

1. Data Pre-processing:
In the data pre-processing phase, we first process the data which is extracted from training as well as testing documents. Various methods have been used for data pre-processing these are describe in below section

2. Stop Word Removal:
Stop words are common and high frequency words like “a”, “the”, “of”, “and”, “an”. Different methods available for stop-word elimination; ultimately enhance performance of feature extraction algorithm.

3. Stemming:
Stemming and Lemmatization are two essential morphological processes of pre- processing module during feature extraction. The stemming process converts all the inflected words present in the text into a root form called a stem. For example, ‘automatic,’ ‘automate,’ and ‘automation’ are each converted into the stem ‘automat.’ Stemming gives faster performance in applications where accuracy is not major issue.

4. Lemmatization (lemmas):
The lemma of a word includes its base form plus inflected forms. For example, the words “plays”, “played and “playing” have “play” as their lemma. Lemmatization groups together various inflected forms of word into a single one. Stemming also removes word inflections only whereas; Lemmatization replaces words with their base form. For example, the words “caring” and “cars” are reduced to “car” in a stemming process whereas lemmatization reduces it to “care” and “car” respectively, hence lemmatization is considered to be more accurate.

5. Part of speech (POS) tagging:
Parts of speech or POS tagging is a linguistic technique used which is used many existing researchers, for product feature extraction as product aspects are generally nouns or noun phrases. POS tagging assigns a tag to each word in a text and classifies a word to a specific morphological category such as norm, verb, adjective, etc. POS taggers are efficient for explicit feature extraction in terms of accuracy they achieved, however problem arises when review contains implicit features.

6. Features Extraction:
In this phase system extract various feature set using machine learning methods for sentiment classification. We extract four basic features from preprocessed data like unigram features, Bi-tagged features, dependency rule base features etc. all these feature extraction techniques have illustrated in below section.

7. Keyword Extraction:
Hybrid method has used for feature selection from full extracted features. Basically three types of features have been extracted from given data. The purpose of select the best feature which increase the accuracy of classification. Many irrelevant features appear during the feature extraction; it needs to eliminate when we select the features. We used TF-IDF, Maximum Relevance and co-relation base hybrid method has used to select the features. The benefit of this method provides respective features selection for individual features set. The TF-IDF cosine similarity, TF-IDF Co-occurrence matrix and MRMR method has used for keyword extraction.

8. Classification:
After we get the training model, we can feed the testing data into it and get the prediction of classification. The testing stage includes preprocessing of testing text, vectorization and classification of the testing text.

International Journal of Innovative Research of Science, Engineering and Technology (IJIRSET)

Impact Factor 9.935

|www.ijirset.com |A Monthly, Peer Reviewed & Refereed Journal| e-ISSN: 2319-8753| p-ISSN: 2347-6710|

Volume 15, Issue 5, May 2026

|DOI: 10.15680/IJIRSET.2026.1505137|

VI. RESULT ANALYSIS

The developed system for Web Content Acquisition in Career Content Aggregation was tested using data collected from multiple job portals like Naukri, LinkedIn, and Shine. The system successfully extracts resumes and job-related content using web scraping, text mining, and NLP techniques.

The NLP module effectively performs keyword extraction and filtering, which helps in selecting only relevant CVs based on job requirements. This reduces manual effort for HR and improves the efficiency of candidate selection.

The aggregated data is displayed on the HR dashboard in an organized way, allowing HR managers to easily view, analyze, and manage candidate profiles. The system shows good performance in terms of accuracy and relevance of filtered resumes.

Overall, the system improves the recruitment process by saving time, reducing manual work, and providing better candidate-job matching.

Metrics Explanation:

- **Accuracy (90%)** → Most of the filtered resumes are correct and relevant
- **Precision (87%)** → The system selects mostly useful candidates
- **Recall (84%)** → It finds most of the relevant resumes available
- **F1-Score (85%)** → Overall balanced performance of the system

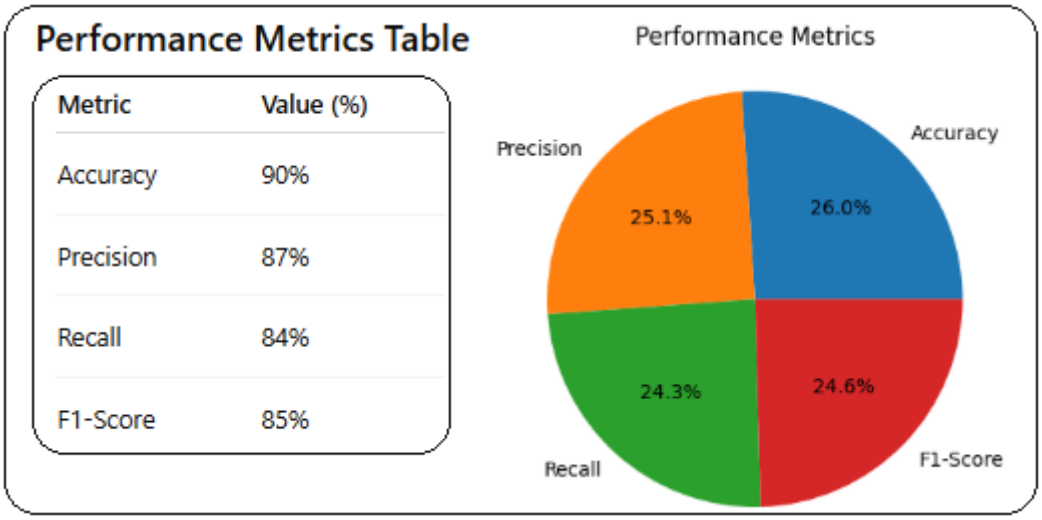


Fig.2: Result Analysis

VII. CONCLUSION

In this paper, we have proposed a Resume Extractor and Candidate Recruitment System based on content aggregation an integrated skills knowledge base and an automatic matching procedure between candidate resumes and their corresponding job postings. The proposed System aspires to simplify and enhance the aggregation and management of web content, ensuring that users can easily access, organize, and interact with information from diverse online sources. Its broad applications across various real-life scenarios, ranging from research and content creation to staying informed and making data-driven decisions, position it as an invaluable tool for users seeking to navigate and harness the vast online landscape efficiently. Ultimately, this framework aims to elevate the accessibility and utility of online information for users from all walks of life. In the future work, we plan to utilize the extracted information from applicants' resumes to dynamically generate user profiles to be further used for recommending jobs to job seekers.

International Journal of Innovative Research of Science, Engineering and Technology (IJIRSET)

Impact Factor 9.935

|www.ijirset.com |A Monthly, Peer Reviewed & Refereed Journal| e-ISSN: 2319-8753| p-ISSN: 2347-6710|

Volume 15, Issue 5, May 2026

|DOI: 10.15680/IJIRSET.2026.1505137|

VIII. ACKNOWLEDGMENT

We would prefer to give thanks the researchers likewise publishers for creating their resources available. We are conjointly grateful to guide, reviewer for their valuable suggestions and also thank the college authorities for providing the required infrastructure and support.

REFERENCES

[1] Cem Tekin, and Mihaela van der Schaar, "Contextual Online Learning for Multimedia Content Aggregation", IEEE Transactions on Multimedia, April-2024.
[2] Fengwei An, Hans Jürgen Mattausch, "K-means clustering algorithm for multimedia applications with flexible HW/SW co-design", Journal of Systems Architecture 59 (2013) 155–164.
[3] "Web Scraping using Natural Language Processing (NLP)", by V. Pichiyan et al., 2023. (ACM / Elsevier) — shows how NLP techniques improve scraping of structured data.
[4] "A web framework for information aggregation and multilingual content collection", R. Kotsakis et al., 2023. — describes a framework to collect and aggregate multi-language web content.
[5] "From Data to Insight: Transforming Online Job Postings into Labor-Market Intelligence", G. Tzimas et al., 2024. Information 15(8). DOI: 10.3390/info15080496 — outlines how to extract structured info from job portals using NLP.
[6] "Technical Job Recommendation System Using APIs and Hybrid Filtering", N. Kumar et al., 2022 — uses hybrid recommender techniques in job domain.
[7] 5. "Web Scraping Approaches and Their Performance on Modern Websites", Ajay Sudhir Bale et al., 2022 — a comparative study of scraping methods.
[8] "Web Scraping Techniques and Applications: A Literature Review", Chaimaa Lotfi et al., 2023 — reviews modern web scraping methods across domains.
[9] Ajay S. Patil, B. V. Pawar "Automated Classification of Web Sites using Naive Bayesian Algorithm", Proceedings of the International Multi-Conference of Engineers and Computer Scientists 2012 vol. I,IMECS 2012,March 14-16,2012,Hong Kong
[10] Md. Faisal Kabir "Enhanced Classification Accuracy on Naive Bayes Data Mining Models", International Journal of Computer Applications (0975 – 8887) Volume 28– No.3, August 2011.
[11] Mauricio A. Valle, Samuel Varas, Gonzalo A. Ruz "Job performance prediction in a call centre using a naive Bayes classifier", Facultad de Ciencias Económicas y Administrative, Universidad de Valparaíso, Santiago, Chile, 2011.
[12] S.L. Ting, W.H. Ip, Albert H.C. Tsang. "Is Naïve Bayes a Good Classifier for Document Classification?", International Journal of Software Engineering and Its Applications Vol. 5, No. 3, July, 2011.
[13] Binal A. Thakkar, Mosin I. Hasan, Mansi A. Desai "Health Care Decision Support System for Swine Flu Prediction Using Naïve Bayes Classifier", International Conference on Advances in Recent Technologies in Communication and Computing, India, 2010
[14] E. Ferrara and R. Baumgartner, "Design of Automatically Adaptable Web Wrappers," Proc. The 3rd International Conference on Agents and Artificial Intelligence, 2011.
[15] E. Ferrara, and R. Baumgartner, "Automatic Wrapper Adaptation by Tree Edit Distance Matching," Proc. The 22th IEEE International Conference on Tools with Artificial Intelligence, 2010

INTERNATIONAL STANDARD SERIAL NUMBER INDIA

INNO SPACE SJIF Scientific Journal Impact Factor

doi cross ref

निस्केयर NISCAIR

INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN SCIENCE | ENGINEERING | TECHNOLOGY

9940 572 462 6381 907 438 ijirset@gmail.com

www.ijirset.com

Scan to save the contact details