Automated Resume Production System: A Structured Approach To Efficient Resume Management And Classification

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2025 International Conference on Computing and Communication Technologies (ICCCT) | 979-8-3315-3757-9/25/$31.00 ©2025 IEEE | DOI: 10.1109/ICCCT63501.2025.11019343

***ABSTRACT*: The automatated resume production system is designed to adapt and streamline the re -beginning construction, classification and recovery, making the process of hiring for both job seekers and recruiters more efficient. Methods of traditional resume-building and screening are often inconsistent, time-taking, and are prone to human errors, causing delays and disabilities in recruitment. This system enables students to generate well -structured resumes using predetermined templates, ensuring uniformity and easy readability. The resume is stored in SQL-based backend, allowing safe and efficient data management. Recruiters can apply filters based on job-specific criteria such as skills, qualifications and work experience, so that they can identify the most appropriate candidates quickly.**

The automatic resume production system is designed to re -start the construction and classification process and make it effective, making recruitment more efficient for both job seekers and recruiters. Traditional re -start construction and screening methods are time consuming and often leads discrepancies, making it difficult for the recruiters to identify the right candidates. This system allows students to generate structured resumes with predefined templates, which ensure a standardized format for easy reviews. The resume is stored in SQL-based backend, which enables safe and efficient recovery. Recruiters can filter resumes based on job-specific criteria such as skills, qualifications and experience, candidates can reduce manual efforts in shortlisting. The system integrates a user -friendly interface, which enables easily resume construction, submission and recovery. By automatic starting production and classification, it reduces human errors, improves accuracy, and accelerates the recruitment process. This scalable and cost -effective solution is designed to meet the developed needs of modern recruitment, which provides a bridge between job seekers and employers. Eventually, automatic resume production system increases the efficiency, accuracy and organization of the hiring process.

KEYWORDS: Automated Resume Production System, SQL Database Management, Candidate Filtering, HR Technology, Skill Matching Job

I.INTRODUCTION

In today's fast-paced task marketplace, businesses get hold of a excessive extent of resumes for every task commencing, making the recruitment procedure tough and time-consuming. Traditional resume introduction and screening methods frequently lead to inconsistencies in formatting, guide errors, and inefficiencies in candidate choice. Recruiters spend a considerable quantity of time reviewing resumes, filtering candidates primarily based on abilties, qualifications, and revel in. This guide approach not simplest slows down hiring but additionally will increase the chances of lacking out on fantastically qualified candidates due to human oversight. To address those demanding situations, the Automated Resume Production System is designed to streamline the resume advent, category, and retrieval system, improving hiring efficiency and accuracy.

The system enables students and job seekers to generate structured resumes using predetermined templates, ensuring uniformity and professionalism. These resumes are then stored in a safe SQL-based backend, allowing easy recovery and classification based on recruiter-defined criteria. Instead of

manually screening each resume, recruiters can use the system to apply filters and shortlists candidates who meet job-specific requirements immediately. This automation reduces the time spent on the re - introduced screening, increasing the accuracy of the candidate selection.

A major advantage of this system is its user-friendly interface, which starts again for job seekers, providing HR professionals with a powerful tool to search, filter and resume HR professionals easily. And simplifies to present. The system ensures that all resumes are stored in an organized and structured manner, making it easy for recruiters to navigate and analyze the candidate profiles. Additionally, the system eliminates bias by offering a standardized classification mechanism, ensuring that the candidates are evaluated purely on their skills and experience.

Automated resume production system is highly scalable, suitable for organizations of all sizes, from small startups to large enterprises. By integrating with existing HR databases and recruitment management systems, the system ensures spontaneous workflow management. It's safe and strong database architecture protects the information of sensitive candidates, ensuring compliance rules. In addition, the system can be adapted to accommodate industry-specific re-start format and classification criteria, which makes it adapted to various work needs.

By implementing this system, organizations can accelerate the process of hiring, can improve the matching accuracy with the candidate, and reduce administrative burden on HR teams. This enhances the overall efficiency of recruitment by allowing recruitment to focus on strategic decisions rather than spending excessive time on manual resume screening. The automatic resume production system not only benefits the recruiters, but also provides job seekers with an easy and efficient way to create professional resumes aligning with industry standards.

II. LITRATURE SURVAY

[1] The rapid expansion of online recruitment has rapidly disabled ways to hire traditional work due to the huge number of unstable resumes presented in various forms and styles. Zarur et al. Unlike traditional systems, which make a global discovery in all resumes, JRC ensures target classification, improves recruiter efficiency. This approach allows for a more structured recruitment workflow, significantly reduces the effort required to organize, manage and filter the resume. Conversely, our automatic re-start production system follows a SQL-based structured classification method, which enables filtering and job matching starting efficiently without relying on the AI-driven classification model. Instead of using an integrated knowledge base, our system stores, recovering, and classifying resumes based on predetermined job-specific norms such as skills, qualifications and experience. By focusing on the structured resume management and SQL-based recovery, our system provides recruitment with an efficient, transparent and scalable recruitment tools. Conclusions of Zarur et al. (2017) Automatic re - introduction exposes the need for classification, the structured re -introduction strengthens the importance of storage and filtering the processes of keeping modern work.

[2] With the increasing requirement of automation in recruitment, Phaliagka et al. (2014) proposed a machine learning-based candidate ranking system that evaluates job applicants using cementic matching and personality analysis. Their system removes information from LinkedIn profile and blog posts to assess the candidates and compare them with job expectations. Unlike this AI-operated approach, our automatic resume production system focuses on SQL-based structured classification, allowing recruiters to filter the filter resume efficiently depending on skills, qualifications and experience. While Phaliagka et al. (2014) Emphasizing machine learning for ranking, our system ensures the restriction resumed management and job-specific filtering without the need of complex AI models. By providing a transparent and scalable SQL-based approach, our system enables HR teams to make skilled candidates shortlisting and quick decisions. This study re the importance of automation in the introduction, reinforcing the need for a structured resume introduction classification to customize the recruitment workflow.

[3] With the increasing number of job applications, screening has become a time-consuming and resource-intensity for the screening resume organizations manually. A study presented at the 2023 IEEE International Students Conference on Electrical, Electronics and Computer Science (SCEECS) detected the use of natural language processing (NLP) and machine learning to analyze and remove information from unrestricted resumes. Screening can be resumed by training machines to process the same text similar to humans, allowing recruiters to identify more efficiently of eligible candidates. The study examined various machine learning algorithms to analyze and interpret the datums resumed again, revealing the progress in automatic resume classification and selection. Unlike the AI-based re-introduction analysis, our automatic re-start production system focuses on SQL-based structured classification, making the recruiters efficiently capable of filter resumes efficiently based

on predetermined job norms such as skills, experiences and qualifications. . Instead of analyzing resumes through NLP and machine learning, our system organizes stores, retreat, and resumes in a structured format, ensuring a sharp and more transparent recruitment process. The findings of this study strengthen the importance of resumed classification and automation, highlighting the need for structured data processing to increase recruitment efficiency. By eliminating the manual resume screening challenges, our system provides a scalable and organized approach to resume, improves the overall recruitment process.

[4] With the increasing amount of online recruitment data, job seekers face challenges in finding relevant job opportunities efficiently. A study published at the 2014 Seventh International Seminar on Computer Intelligence and Design introduced a job recommendation system using a user-based and item-based associate filtering algorithm to improve job matching. By incorporating students' resumes, job details and user preferences, the system enhances recommendations and improves the accurate and recall score. Unlike this approach, our automatic re-start production system focuses on SQL-based structured classification for efficient re-start construction, filtering and job-bloom matching. This study exposes the importance of automation in recruitment, which strengthens the structured resume management requirement to streamline the processes of hiring.

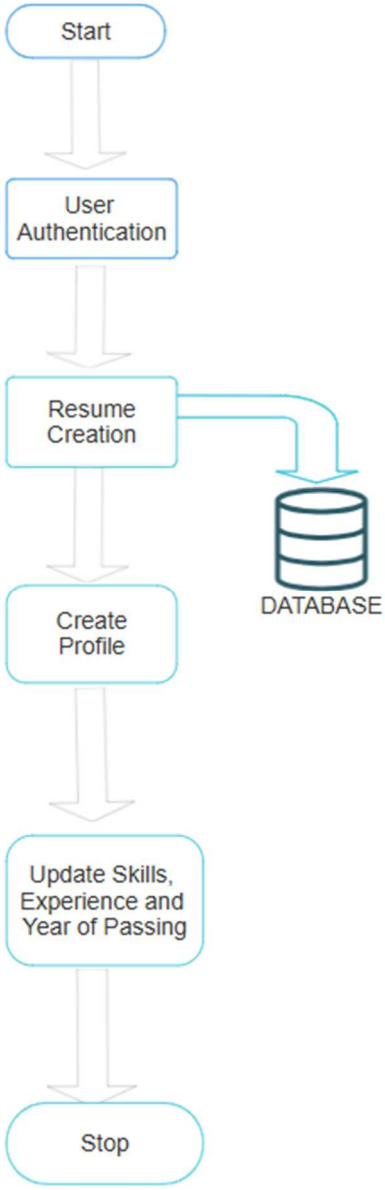
[5] In today's competitive job market, it is necessary to resume a professional to create a strong first impression for job seekers. A resume builder app was proposed to help users to generate structured resumes and suggest jobs based on their skills. The system allows users for input details such as education, technical skills and experiences, ensuring a well - formatted resume. Additionally, it predicts appropriate job opportunities aligned with the expertise and interests of the user. Unlike this approach, our automated resume production system focuses on manage, classification, and skilled re-starting for SQL-based filtering on management and job-role matching. This research highlights the importance of automation in re -introduction production to streamline the hiring process.

III. METHODLOGY

SYSTEM ARCHITECTURE

1.Candidate Portal

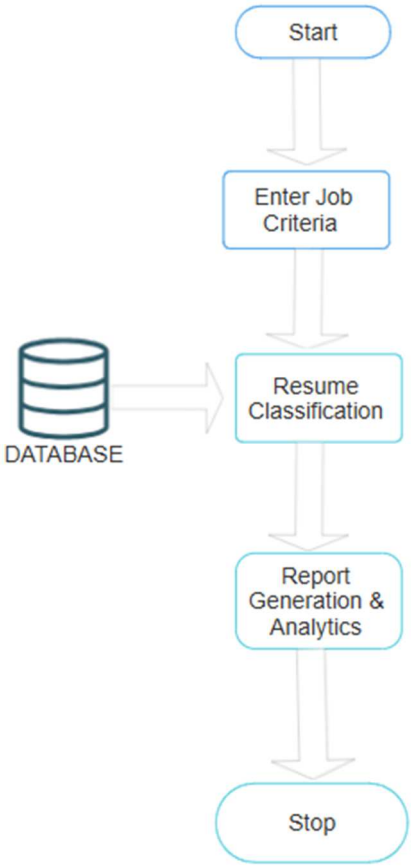
The automated resume starts the production system, user authentication to profile creation and major stages ranging from updates. The process starts with the start node where the users start the system and ensure safe login, users proceed to authentication. Once certified, the users move to the resume creation phase, where they enter the required details, which are then stored in the database for future access. After the resumption, users proceed to create a profile phase, connecting their resume details to their account. The system allows users to update the year of skill, experience and pass, ensuring that their profiles are current and relevant to job opportunities. The process ends at the stop node, which resumes indicates the successful completion of the profile creation process. The profile contains the candidate details that can be viewed when candidate needed to viewed. This ensures an efficient, organized, and scalable resume management process.



2.Admin Portal

Automated resume production system shows the resumed classification and the process of analytics within the production system. The process starts at

the node, where the system is introduced, followed by the enter job criteria, where recruiter inputs input specific job requirements such as skills, experience and qualifications. The system then re -starts classification, rebuilding the relevant resume from the database based on the work criteria recorded. After classification, the system proceeds to report generation and analytics, where it offers a recruiter with insight, trends and structured data to make better decisions. This step helps candidates to filter efficiently, reduces the time to work, and improves recruitment accuracy. Finally, the process ends at the stop node, re -starting the completion of filtering and analytics. This structured approach increases the efficiency, accuracy and scalability of the recruitment process.



MODULES

Every modular element in the Automated Resume Production System is responsible for performing a specific task for the system. The primary modules are the User Authentication module, Resume Creation & upload module, Resume Classification module, Job Criteria & Matching module, Admin management module and Report Generation & Analytics Module**.** The components work together to provide a faultless user experience and ensure the system operates safely and effectively.

1.User Authentication Module

User registration and certification modules ensure secure access to students, recruiters and admins by enabling to create and manage accounts. Users can register by providing necessary details such as names, emails, contact information and role selection (student or recruitment). The system enforces safe authentication mechanisms including password encryption, OTP verification and role-based access control to prevent unauthorized access. Recruitment can log in to search for resumes, while students can upload and manage their resume details. The module also includes characteristics for password recovery, profile management and session handling. By ensuring data protection and controlled access, this module plays an important role in protecting the user information and increasing the reliability of the system.

2.Resume Creation & upload Module

The resume creation and upload module allows students to generate and present resumes in a structured and professional format. It provides a predetermined resume template to ensure stability and ease of use, enables users to enter details such as education, skills, experiences and certificates. The system supports the re -introduced uploads in several formats (PDF, docx) and safely stores them in an SQL database for efficient recovery. Verification checks ensure that resumes complete the required formatting and material guidelines before the resume submission. Students can update or modify their resumes as required, ensuring that their profiles are up-to-date. This module plays an important role in standardizing resumes and making them easily accessible to the recruiters.

3.Resume Classification & Filtering Module

Resume classification and filtering module automatically the process of organizing and recovering resumes based on specific job criteria. Using the SQL questions, the system classifies resumes by key features such as system skills, qualifications, experience and job roles, which ensures quick and efficient candidates shortlisting. Recruiters can apply filters to search for resumes that match job requirements, reduce manual efforts and improve the accuracy of hiring. The system ensures structured data recovery, making it easier to analyze the candidate suitability for various roles. This module increases the recruitment efficiency by providing a real-time relevant, pre-screen resumes. By automating the classification, the system re - introduces the starting management and accelerates the recruitment process.

4.Job Criteria & Matching Module

Job criteria and matching modules enable recruitments to select specific job requirements, such as skills, experiences, education and certificates, for accurate candidate selection. The system stores job details and criteria in a SQL database and automatically matches the resume based on predefined filters. Recruiters can search for candidates who meet job-specific qualifications, ensure an efficient and data-operated recruitment process. This module eliminates manual resume screening only by introducing the most relevant resumes, which improves accuracy in talent acquisition. This allows recruiters to refine the search parameters and adjust the job criteria dynamically. By automating the job-to-candidate matching, the system accelerates recruitment and ensures better work decisions.

5.Admin Management Module

The administrator management module automatic re -starts provides administrators with complete control over the production system, ensuring smooth operation and data integrity. Admins can manage user accounts, job criteria, resumed classification and system settings, maintaining a structured recruitment workflow. This module enables role-based access control, allowing only authorized users to reach specific features, increase safety. Admins can monitor recruiter activity, track system performance and generate reports to analyze recruitment trends. It also includes functionality for database maintenance, ensuring efficient storage, recovery and system adaptation. By overseeing the user management and system configuration, this module plays an important role in maintaining system efficiency and safety.

6.Report Generation & Analytics Module

The report offers recruitment and administrator with detailed insights into the trends of generation and analytics module recruitment, candidate data and system performance. It re-uploads a report to upload, job matches, recruiter discoveries and success rates, which helps HR teams to make data-powered decisions. The module includes visual analytics dashboards that display major matrix such as the number of resumes classified, filtered discoveries and job-role specific candidates availability of availability. Recruiters can export reports to formats such as PDF or Excel for further analysis and record-mapping. This module enhances transparency and efficiency by offering real -time analytics to improve the hiring process. By automating the report generation, it helps organizations to track progress and optimize their recruitment strategies.

IV. RESULT AND DISCUSSION

The report offers recruitment and administrator with detailed insights into the trends of generation and analytics module recruitment, candidate data and system performance. It re-uploads a report to upload, job matches, recruiter discoveries and success rates, which helps HR teams to make data-powered decisions. The module includes visual analytics dashboards that display major matrix such as the number of resumes classified, filtered discoveries and job-role-specific candidates availability of availability. Recruiters can export reports to formats such as PDF or Excel for further analysis and record-maping. This module enhances transparency and efficiency by offering real -time analytics to improve the hiring process. By automating the report generation, it helps organizations to track progress and optimize their recruitment strategies.

The user-friendly interface of the system allows students to upload resumes in many formats, while recruiters can basically search, filter and shortlist candidates. The administrator management module ensures data security and system reliability by enabling the role-based access control and monitoring of user activities. The report provides real -time insights into the trend of generation and analytics module recruitment, which helps HR teams to make informed decisions based on data and performance to rent. Results suggest that there is significant improvement in efficiency in automation, reduces the time spent on resume screening by 50% compared to manual procedures.

The discussion stated that SQL-based filtering is an effective option of machine learning models for structured recruitment workflows, especially for small and medium-sized outfits. The scalability of the system ensures that it can handle the increasing amount of resumes as the number of users increases. However, the ranking algorithm can be resumed for AI-based skill extraction, linkedIn or job portals and further adaptation in future promotion. Overall, automatic re -start production system displays significant improvements in recruitment speed, accuracy and efficiency, making it a valuable tool for modern work processes

V.CONCLUSION

Automated resume production system successfully starts the recruitment process by automatic re -start construction, classification, filtering and job matching. It eliminates the disability of manual screening, providing a structured and scalable solution for both job seekers and recruitments. The system allows students to generate resumes in a standardized format, which ensures stability and professionalism. Recruiters benefit from SQL-based filtering, making them capable of quickly identifying candidates based on specific job criteria such as skills, experiences and qualifications.

By integrating modules such as resume classification, job matching, admin management and report generation, the system reduces manual efforts and accelerates hiring decisions. The safe SQL database system ensures efficient data recovery and storage to increase reliability. The results suggest that the system screening improves recruitment efficiency by reducing the time by about 50%, making it a valuable tool for HR professionals.

While the current system provides accurate and structured resume classification, future promotion may include AI-based skill extraction, integration with job portals and automatic ranking algorithms. Overall, the project provides a cost -effective, scalable and highly efficient solution for modern recruitment challenges, which ensures fast and more accurate work decisions for organizations.

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