

ResumeXpert – Verified resume Using Django

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ABSTRACT

The **ResumeXpert – Verified Resume Platform** is a web-based application developed using the **Django framework** to improve the credibility of resumes in the recruitment process. In the current hiring ecosystem, many resumes contain exaggerated or unverified skills, making it difficult for recruiters to identify genuinely skilled candidates. ResumeXpert addresses this issue by introducing a **skill verification mechanism** where students must complete role-based assessments before adding skills to their resumes.

The system allows users to create structured resumes and unlock skills only after successfully passing **MCQ-based skill evaluation tests**. Recruiters can access verified candidate profiles and evaluate them using an **ATS-oriented resume score**, which improves the efficiency of candidate shortlisting. The platform includes modules for students, recruiters, and administrators to manage skill tests, job postings, and resume verification.

By combining automated assessments, resume scoring, and secure web technologies provided by Django, ResumeXpert improves transparency in recruitment and enhances employability for genuine candidates.

I INTRODUCTION

In today's competitive job market, resumes play a crucial role in the recruitment process. Employers rely heavily on resumes to evaluate candidates' qualifications, skills, and experiences before shortlisting them for interviews. However, many resumes contain **self-declared skills without proper verification**, which makes it difficult for recruiters to trust the information provided by applicants.

Applicant Tracking Systems (ATS) are commonly used by organizations to filter resumes automatically. While these systems help in handling large volumes of applications, they often reject resumes that lack relevant keywords or validated skills. As a result, many

deserving candidates fail to get shortlisted even if they possess the required abilities.

The **ResumeXpert – Verified Resume Platform** is designed to overcome these challenges by introducing a **skill verification mechanism** within the resume creation process. Instead of allowing users to freely add skills to their profiles, the system requires them to complete **role-based assessments**. Only after successfully passing these tests will the corresponding skills appear in the resume.

The platform is developed using the **Django web framework**, which provides secure authentication, efficient database management, and scalable architecture. ResumeXpert aims to create a reliable environment where students can build professional

resumes, recruiters can trust candidate profiles, and organizations can improve hiring efficiency through verified skill validation.

II RELATED WORK

Several online platforms and research studies have attempted to improve the process of resume creation and candidate evaluation. Traditional resume builders such as online template-based systems mainly focus on providing formatting tools and predefined layouts that allow users to generate professional-looking resumes quickly. However, these systems generally rely on **self-declared information**, which may not accurately reflect a candidate's real skills.

Recent research in recruitment technology has focused on **Applicant Tracking Systems (ATS)** and automated resume screening methods. These systems analyze resumes using keyword matching and skill identification techniques to shortlist candidates. Although ATS tools help recruiters manage large numbers of applications, they still depend heavily on the authenticity of information provided in resumes.

Some research studies have explored **online assessment platforms** that evaluate candidate skills through tests and quizzes. These platforms provide a more reliable way to measure technical knowledge; however, they are usually separated from resume creation systems. As a result, recruiters must analyze assessment results and resumes separately.

The **ResumeXpert platform** integrates both concepts by combining **resume creation with skill verification** in a single web-based system. By allowing skills to appear in resumes only after successful test completion,

the platform increases credibility and simplifies the candidate evaluation process for recruiters.

III LITERATURE REVIEW

The development of intelligent recruitment platforms has attracted increasing attention in recent years due to the rapid growth of online job applications. Researchers have explored various technologies such as **resume parsing, skill extraction, keyword matching, and automated candidate ranking** to improve hiring efficiency.

Early resume management systems mainly focused on storing candidate information and generating formatted documents. These systems provided limited functionality and lacked mechanisms to verify the authenticity of the skills mentioned by candidates.

With the advancement of **Natural Language Processing (NLP)** and machine learning techniques, researchers began developing systems capable of analyzing resume content and extracting relevant information such as education, skills, and work experience. These systems helped recruiters match resumes with job descriptions more effectively.

In addition, several studies have proposed **online skill assessment platforms** that evaluate candidates through quizzes, coding tests, and multiple-choice examinations. These assessment systems provide objective measurements of candidate knowledge and help organizations identify skilled applicants.

However, many existing systems treat resume creation and skill assessment as **separate processes**, which increases complexity for both recruiters and candidates. The ResumeXpert system addresses this gap by integrating **skill verification directly into the resume**

creation process, ensuring that the information displayed in resumes is accurate and validated.

IV EXISTING SYSTEM

In the existing recruitment system, candidates typically create resumes manually using text editors or online templates. These resumes are then submitted to companies through job portals or email applications. The skills listed in these resumes are **self-declared by candidates without any verification mechanism**.

Recruiters rely on Applicant Tracking Systems (ATS) and manual screening processes to filter applications. ATS tools scan resumes for specific keywords and qualifications related to job requirements. However, these systems cannot determine whether the mentioned skills are genuine or exaggerated.

As a result, recruiters often spend significant time reviewing resumes that may not accurately represent the candidate's actual abilities. This leads to inefficient hiring processes and reduced trust in resume information.

DISADVANTAGES

The existing resume and recruitment system has several limitations:

- Skills mentioned in resumes are **not verified**, leading to possible exaggeration or false claims.
- Recruiters must manually evaluate large numbers of resumes, increasing hiring time.
- Applicant Tracking Systems may reject capable candidates due to poor resume optimization.
- There is no reliable way to measure whether a candidate actually possesses the listed skills.
- The recruitment process becomes inefficient due to lack of trust in resume data.

These limitations highlight the need for a **verified resume system** that ensures skill authenticity and improves recruitment efficiency.

V PROPOSED SYSTEM

The proposed system, **ResumeXpert – Verified Resume Platform**, is a web-based application that ensures the authenticity of skills mentioned in resumes. The platform allows students and job seekers to create professional resumes while verifying their skills through **role-based assessments**.

In this system, users register and create their profiles by entering details such as education, skills, certifications, and experience. However, skills cannot be directly added to the resume. Instead, users must complete **online MCQ-based tests** related to the selected skill or job role. Once a user successfully passes the test, the skill becomes **unlocked and verified** in the resume.

The platform includes three main modules:

Student Module – Allows students to register, attempt skill assessments, build resumes, and track their resume score.

Admin Module – Enables administrators to manage question banks, monitor users, verify tests, and manage job postings.

Employer Module – Allows recruiters to view verified resumes, filter candidates based on skills, and shortlist suitable applicants.

The system also calculates an **ATS-oriented resume score** based on skill verification, resume completeness,

and test performance. This helps recruiters identify the most suitable candidates quickly and efficiently.

ADVANTAGES

The proposed ResumeXpert system offers several benefits:

- Ensures **authenticity of skills** through verified assessments
- Reduces fake or exaggerated skill claims in resumes
- Improves recruiter trust in candidate profiles
- Enhances compatibility with Applicant Tracking Systems
- Reduces hiring time and improves recruitment efficiency
- Helps students demonstrate their **real competencies**
- Provides a centralized platform for resume management and skill evaluation

Role-based access control ensures data security and privacy, while analytics and reporting features enable institutions to make informed decisions using placement statistics and performance insights. Overall, the system increases operational efficiency, reduces paperwork, enhances user experience, and provides a scalable solution capable of handling large volumes of placement activities in higher education institutions.

VI METHODOLOGY

1. The ResumeXpert system is developed using a structured methodology that integrates web development technologies with skill assessment mechanisms.
2. First, **requirement analysis** is conducted to identify the needs of students, recruiters, and administrators. Based on these requirements, the system architecture is designed using the **Model–View–Template (MVT)**

architecture of Django, which separates application logic, data models, and user interfaces.

3. In the next stage, **user registration and authentication** modules are developed to allow secure access to the system. Students can create profiles and enter their academic and professional details using structured forms.
4. The **skill verification module** is then implemented. This module contains role-based MCQ tests for different technical skills such as programming, databases, and networking. When a student attempts a test and achieves the required score, the corresponding skill is unlocked and added to the resume.
5. The system also includes a **resume scoring mechanism** that evaluates the completeness and relevance of the resume content. Recruiters can search for candidates based on verified skills and ATS score.
6. Finally, the application undergoes **testing and evaluation**, including functional testing and usability testing, to ensure system reliability and performance.
7. **Data Collection**

The first stage involves collecting a healthcare dataset containing relevant features such as age, gender, body mass index (BMI), blood pressure levels, glucose level, cholesterol, smoking habits, physical activity, and family medical history. The dataset may be obtained from public health repositories or clinical records. These attributes serve as input variables for the prediction model.

8. Data Preprocessing

Raw healthcare data often contains missing values, noise, and inconsistencies. Therefore,

preprocessing is performed to clean and prepare the dataset. This includes handling missing values, removing duplicates, encoding categorical variables, and normalizing numerical features. Feature selection techniques are also applied to identify the most significant risk factors that influence hypertension prediction.

9. Exploratory Data Analysis (EDA)

Before training the models, exploratory analysis is conducted to understand data distribution and relationships among features. Visualization techniques and statistical analysis help identify patterns, correlations, and potential imbalances in the dataset.

4. Model Development

Several supervised machine learning algorithms are used to build prediction models. Commonly applied algorithms include Logistic Regression, Decision Tree, Random Forest, Support Vector Machine, and K-Nearest Neighbors. The dataset is divided into training and testing sets to evaluate model performance effectively. Hyperparameter tuning is performed to optimize each model.

10. Model Evaluation

The trained models are evaluated using performance metrics such as accuracy, precision, recall, F1-score, and confusion matrix. Cross-validation techniques are applied to ensure that the model generalizes well to unseen data. The best-performing algorithm is selected based on these evaluation results.

11. Prediction and Deployment

The final model is used to predict whether an individual is at risk of hypertension based on input health parameters. The system can be integrated into a healthcare application to assist doctors and patients in early diagnosis and preventive decision-making.

This methodology provides a structured approach for building an efficient and reliable hypertension prediction system using machine learning techniques. The **Resume Expert Using Django** system is developed using a structured and modular methodology to ensure efficiency, scalability, and ease of use. The development process follows a web application architecture that integrates frontend design, backend processing, and database management within the Django framework.

First, **requirement analysis** is conducted to identify user needs such as resume creation, editing, template selection, and intelligent feedback. Based on these requirements, the system architecture is designed using the Model–View–Template (MVT) pattern of Django. The **Model** handles data structures like user profiles, education, skills, and experience, while the **View** manages application logic, and the **Template** provides a responsive user interface.

The next stage involves **data collection and input processing**, where users enter resume details through structured forms. Django forms and validation techniques ensure accurate and secure data entry. The system stores information in a relational database, allowing users to update and manage their resumes dynamically.

To enhance resume quality, an **analysis module** is integrated using basic Natural Language Processing concepts. This module evaluates keywords, content structure, and completeness of sections to provide

automated suggestions. The methodology also includes user authentication and authorization to maintain data privacy and personalized dashboards.

Finally, the system undergoes **testing and evaluation**, including functional testing, usability testing, and performance validation to ensure reliability. By combining web development practices with intelligent processing techniques, the methodology provides a streamlined approach for building an effective and user-friendly resume expert platform.

VII SYSTEM MODEL

SYSTEM ARCHITECTURE

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The system architecture consists of three main layers:

1. User Interface Layer

- Provides web pages for students, recruiters, and administrators.
- Allows users to register, log in, create resumes, and attempt skill tests.

2. Application Layer

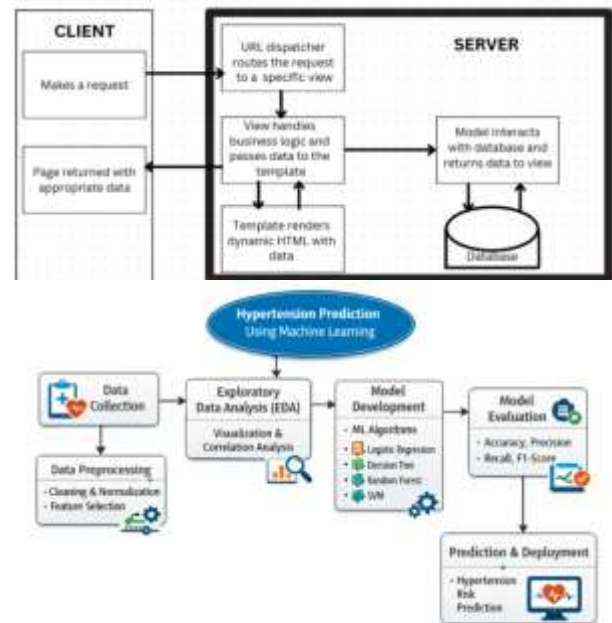
- Handles business logic such as skill verification, test evaluation, resume scoring, and candidate filtering.

3. Database Layer

- Stores user information, resume data, test questions, results, and recruiter job postings.

The Django framework manages communication between these layers and ensures secure data handling.

• DATA HANDLING



VIII RESULTS AND DISCUSSIONS

Result

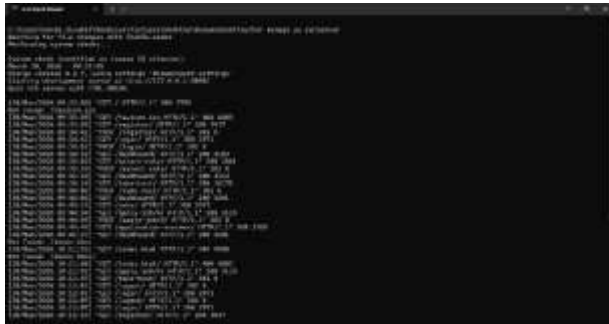
The ResumeXpert system was successfully developed and tested as a web-based application. The platform allows students to register, create profiles, and attempt skill verification tests. Once users pass the required assessments, the corresponding skills appear as **verified skills** in their resumes.

Recruiters can log into the system and view candidate profiles with verified skills and resume scores. The system allows recruiters to filter candidates based on skill sets, qualifications, and test performance. This helps organizations shortlist candidates more efficiently.

Testing results indicate that the system effectively reduces fake skill claims and improves the reliability of resume information. The integrated resume scoring mechanism also helps identify high-quality profiles quickly, making the recruitment process faster and more transparent.

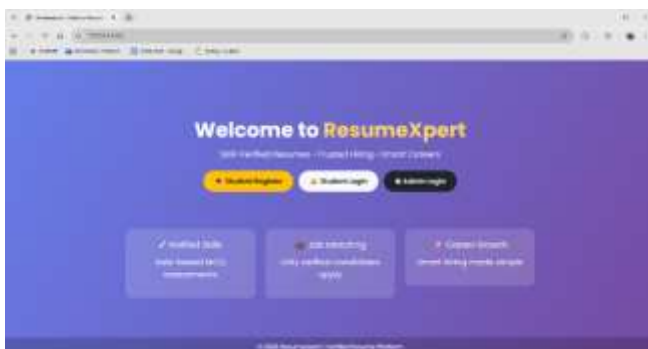
Now double click on 'runServer.bat' file to start python server and then will get below page

- RUN PAGE**



In above screen python web server started and now open browser and enter URL as <http://127.0.0.1:8000/index.html> and then press enter key to get below page

- DEMO PAGE**



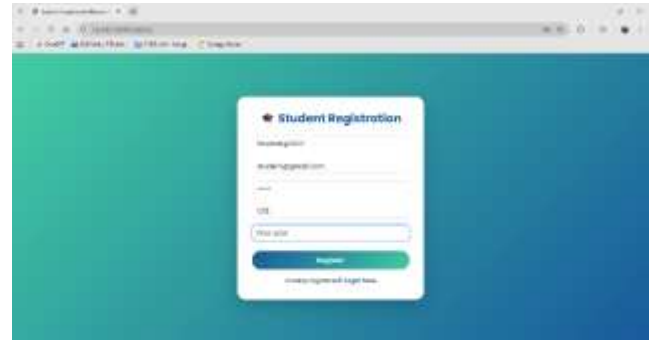
In above screen click on 'Recruiter Sign up' link to get below page

- SIGN UP PAGE/REGISTER PAGE**



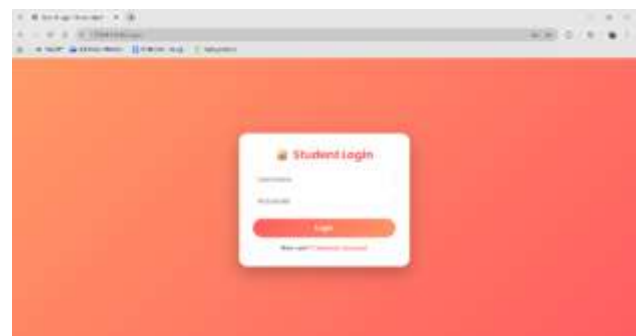
In above screen recruiter is entering sign up details and then press button to get below page

- REGISTRATION COMPLETE**



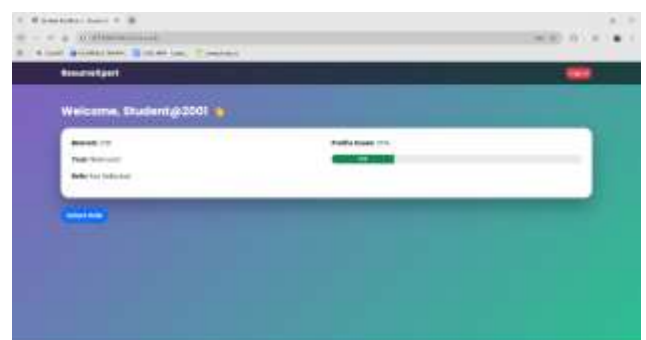
In above screen 'Sign up process completed' and now click on 'Recruiter Login' link to get below page

- LOGIN PAGE**



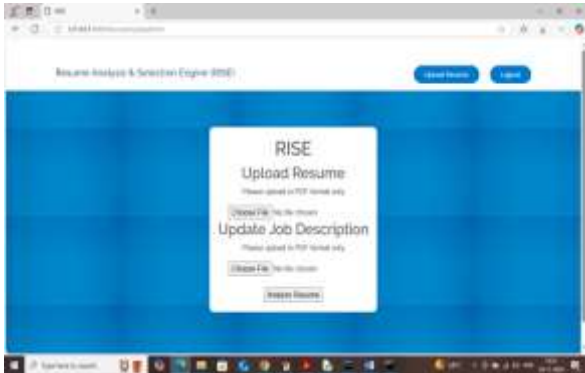
In above screen recruiter is login and after login will get below page

- USER DASHBOARD**



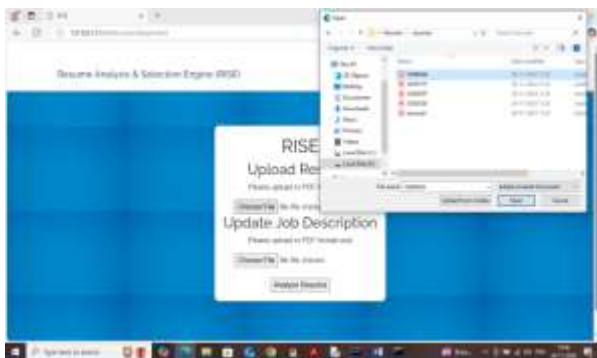
In above screen Recruiter can click on 'Upload Resume' link to get below page

- SELECTING JOB ROLES PAGE

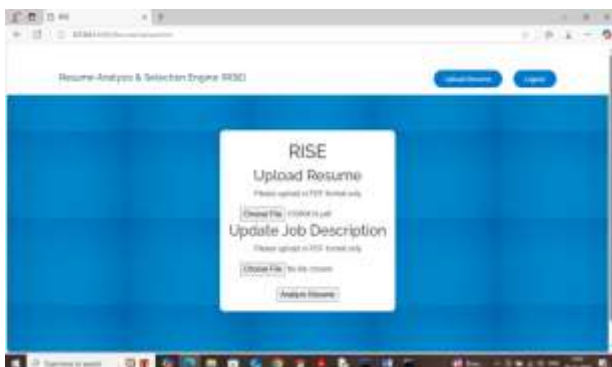


In above screen either upload resume or job description and then press 'Analyse Resume' button to get result but for first upload you will not get any result as there was no resume or description for match and from second upload you may see result

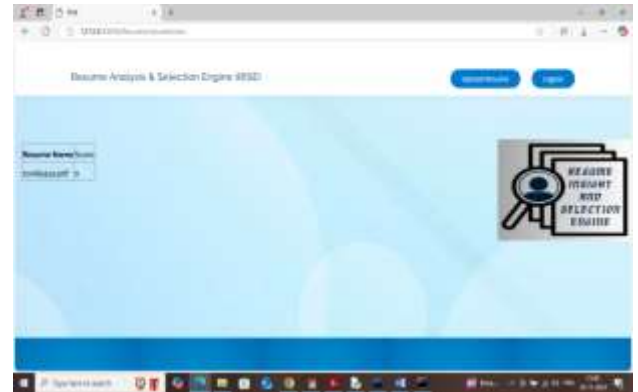
- UPLOAD RESUMES



In above screen uploading resume and then click 'Open' button to get below result

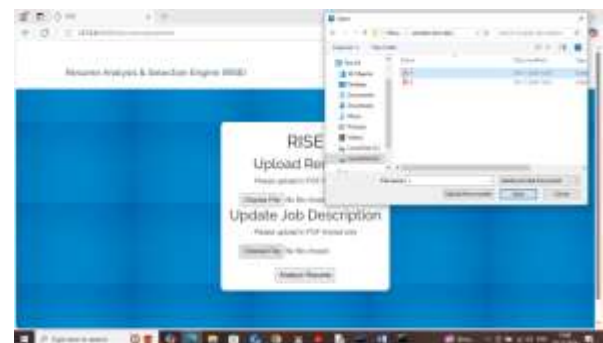


In above screen resume file loaded and now click on 'Analyse' button to get below result



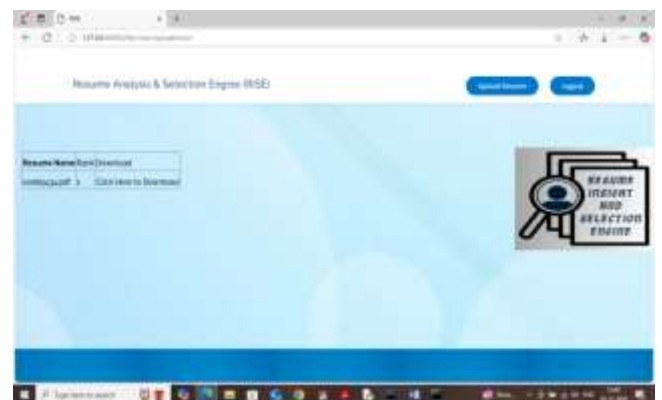
In above screen score is 0 as there is no other 'Job description' to match and now upload another job description

- RESUME UPLOAD

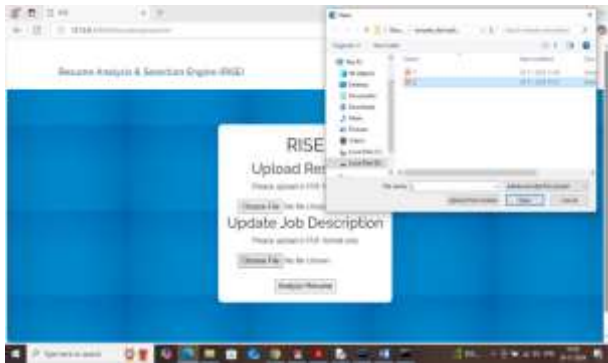


In above screen uploading 'job description' and then press button to get below page

- RESUME DOWNLOAD

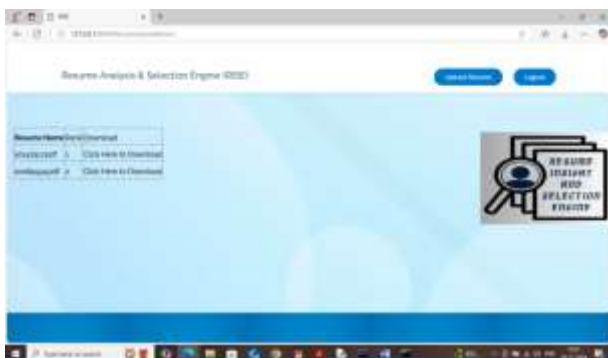


In above screen uploaded job description matched with available single resume so will get that rank and now upload another job description



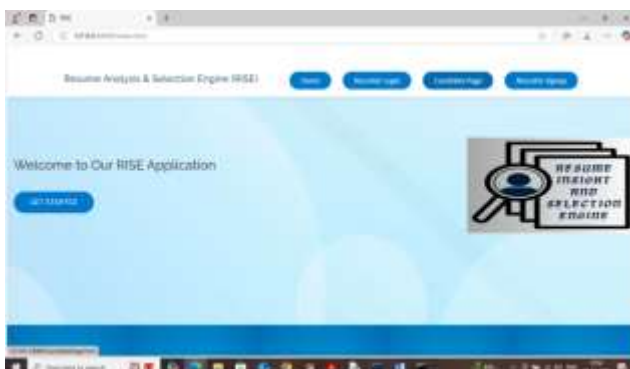
In above screen uploading another job description and then press button to get below result

• RESUME RESULT DATA

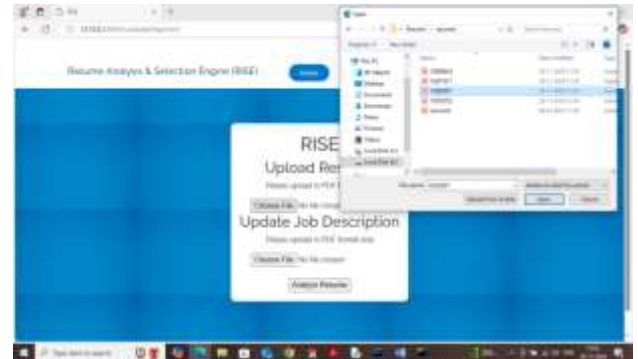


In above screen two resumes matched with available job descriptions and got above results. Similarly recruiters will upload and get result and now logout to perform candidate operations

• APPLYING JOB ROLES

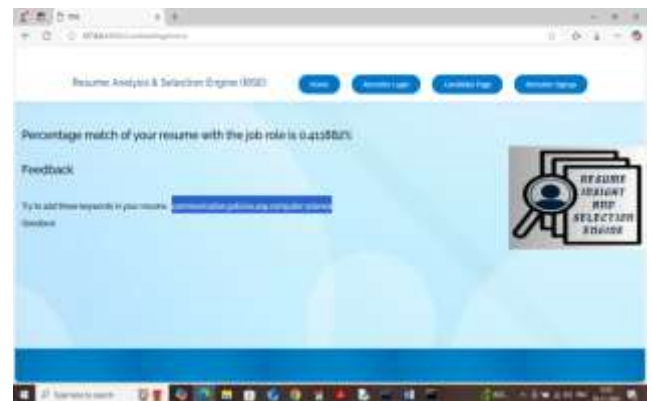


In above screen click on 'Candidate Page; to get below screen



In above screen candidate uploading resume and then press button to get below output

• RESUME MATCHING



In above screen candidate resume got 41% matched result and can see feedback in blue colour text and similarly candidate can upload his description also

• UPLOAD DESCRIPTION PAGE



In above screen candidate uploading 'job description' and then press button to get below page



In above screen candidate uploaded 'job description' got 25% matched and can see feedback also.

So above the recruiter and candidate output pages

For testing purpose we have given some sample resumes available inside 'resumes' folder and sample description available inside 'sample description' folder.

IX CONCLUSION

The **ResumeXpert – Verified Resume Platform** provides an innovative solution to improve the authenticity and reliability of resumes in the recruitment process. By integrating skill verification tests with resume creation, the system ensures that the skills mentioned in candidate profiles are genuine and validated.

The use of the Django framework enables secure authentication, efficient data management, and scalable web application development. The platform benefits both students and recruiters by improving transparency, reducing recruitment time, and enhancing trust in candidate profiles.

In the future, the system can be extended by integrating **AI-based resume analysis, coding assessments, and company-specific skill tests** to further improve recruitment accuracy and candidate evaluation.

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