Smart Career Builder

Baby Kalpana Y#1, Nivedha V #2, Pooja S#3, Surya K L#4, Vibin Kumar K#5

#1 Professor, Department of Computer Science and Engineering, Sri Shakthi Institute of Engineering and Technology, India. Email: Babykalpanacse@siet.ac.in

#2 Student, Department of Computer Science and Engineering, Sri Shakthi Institute of Engineering and Technology, India. Email: viswamaninivedha21cse@srishakthi.ac.in

#3 Student, Department of Computer Science and Engineering, Sri Shakthi Institute of Engineering and Technology, India. Email: srinivasanpooja21cse@srishakthi.ac.in

#4 Student, Department of Computer Science and Engineering, Sri Shakthi Institute of Engineering and Technology, India. Email: kannaiyansurya21cse@srishakthi.ac.in

#5 Student, Department of Computer Science and Engineering, Sri Shakthi Institute of Engineering and Technology, India. Email: vibinkumark21csel@srishakthi.ac.in

ABSTRACT

A strong CV is no longer enough for successful career advancement in the ever changing job market of today. A planned and astute approach to career development is necessary given the current work environment. This strategy should incorporate proactive safeguards against fake job advertising, digital portfolio building, dynamic CV preparation, and ATS (Applicant Tracking System) optimization. Smart Career Management Systems have become indispensable resources for job seekers seeking to improve their employability, create a strong online presence, and protect themselves from cyberattacks as technology transforms recruiting procedures. These integrated platforms make use of AI and machine learning to offer tailored advice, expedite the application process, and offer a thorough framework for overseeing each stage of a candidate's professional development.

Keywords: smart career management systems, resume building, portfolio development, applicant tracking systems (ATS), ATS optimization, AI-powered career tools, job application automation, fake job detection, career development platforms, machine learning in hiring, career portfolio, resume optimization, career security, intelligent job search..

I.   INTRODUCTION

The digital revolution, changing economic conditions, and changing employer expectations are all contributing to significant changes in the worldwide labor market. A well-written CV alone is no longer enough to acquire a job or further a career in an ever-changing environment. The intricacies and competitiveness of contemporary hiring procedures are not adequately addressed by the conventional resume-based method.

Today's job seekers face a number of new obstacles, such as the increase in fraudulent job postings, automated and impersonal hiring processes, and the increased focus on digital identification. These changes necessitate a technologically advanced, strategic approach to career management that goes beyond traditional techniques.

Smart Career Management Systems (SCMS), which are integrated platforms made to help people successfully navigate the job market, are at the forefront of this evolution. These systems offer automatic application improvement, real-time feedback, and customized career counseling by leveraging state-of-the-art technology like artificial intelligence (AI) and machine learning.

SCMS systems can create customized cover letters, analyze job descriptions, and modify resumes for Applicant Tracking Systems (ATS). Additionally, they facilitate the establishment of digital portfolios, which allow individuals to showcase their accomplishments, abilities, and work in an interactive, verifiable manner. Professionals are now able to create a thorough web presence that increases their exposure and appeals to employers thanks to the digital revolution.

Furthermore, the necessity for safe and trustworthy job search platforms has increased due to the rise in cybercrime and frauds involving jobs. SCMS has built-in safeguards to identify questionable job postings, confirm the legitimacy of employers, and guarantee the security of user data.

These systems' capacity to monitor professional advancement over time is another important feature. Users can access carefully chosen job prospects that fit their profiles, set goals, track skill improvement, and get upskilling recommendations. As a result, the job search becomes more targeted, effective, and in line with long-term goals.

By using AI, SCMS is able to continuously learn from user interactions, increasing the precision and applicability of its recommendations. These platforms are wise career partners for everything from interview preparation to discovering growth sectors to comparing one's qualifications to industry norms.

As non-linear career pathways, freelance labor, and remote work grow more prevalent, people need to adjust by embracing tools that provide flexibility and insight. In the digital age, smart career management systems are becoming more than just tools; they are becoming vital infrastructures for employability.

We examine the elements, advantages, and potential of SCMS in this research. We examine how they might enhance the results of job searches, shield users from online dangers, and change the way people think about advancing their careers.

These platforms are revolutionizing what it means to be prepared for a profession in the twenty-first century by utilizing automation and data-driven insights. In the end, SCMS signifies a change from reactive to proactive career planning, enabling users to take charge of their career path in a world that is changing quickly.

II . LITERATURE SURVEY

Nguyen, T., et al. (2021) dealt the study of examined the effectiveness of AI-powered resume builders using natural language generation (NLG) models to help job seekers draft impactful resumes. The researchers developed a prototype that used contextual information and user prompts to generate career summaries, work experiences, and skill descriptions. The study found that AI-generated resumes scored significantly higher on recruiter assessments than manually created resumes, especially for first-time job seekers. The model used in the research was built on GPT-2 and fine-tuned with real-world resume datasets. The researchers emphasized the need for user customization and human-in-the-loop systems to maintain authenticity. One limitation was the occasional generation of generic or repetitive content. The paper concluded that AI-assisted resume creation can democratize access to professional- grade documentation.

Devlin, J., et al. (2019) dealt the foundational work introduced BERT (Bidirectional Encoder Representations from Transformers), a transformer-based NLP model that revolutionized text understanding in AI applications. BERT's deep contextual understanding of language makes it ideal for resume parsing, keyword extraction, and content generation. The paper demonstrated BERT's superiority over traditional NLP methods on multiple benchmarks, including sentence classification and named entity recognition. This research is relevant because BERT can be applied to enhance grammar correction and match resumes with job descriptions in your project. Its bi-directional training enables it to capture nuanced meanings, which is crucial when evaluating professional language in resumes and portfolios.

Johnson, R., et al. (2018) dealt the study of evaluated various online resume builders and their impact on hiring decisions. Platforms like Novoresume and Zety were analyzed for their

design quality, content recommendations, and user engagement. The research concluded that while templates improved visual appeal, most tools lacked meaningful AI integration. Only 23% of tested platforms offered actionable content suggestions or ATS compliance tips. The study highlighted a gap in the market for AI-driven, data-backed resume systems. It also emphasized the need for tools that balance aesthetics with functionality, pointing toward opportunities for your project to stand out.

Ling, C., et al. (2018) dealt the design of an AI-powered grammar correction tool that adapts to the user's tone and intent. Unlike static grammar checkers, the proposed model used attention-based mechanisms to generate context-sensitive corrections. It improved clarity, formality, and fluency— qualities essential in resumes and portfolios. The researchers showed how grammar errors significantly reduced the perceived professionalism of a resume. They also highlighted that most users were unaware of advanced grammar issues in their writing, suggesting the importance of real-time correction. This research supports the inclusion of intelligent proofreading in your platform.

Tan, W., et al. (2020) dealt the AI's role in resume-job matching using machine learning algorithms. The authors proposed a system that parses resumes and job descriptions to calculate a similarity score using cosine similarity, TF-IDF, and word embeddings. The study used a dataset of 50,000 job listings and resumes, achieving 82% accuracy in match prediction. The relevance to your project lies in the ATS compatibility checker. The research also emphasized that including recommended keywords and action verbs increased the chances of selection, highlighting the value of AI-powered content enhancement in your system.

Singh, A., & Patel, M. (2022) dealt the focused on portfolio-based hiring and the effect of digital portfolios on recruiter perceptions. It analyzed 800 hiring decisions and found that candidates with portfolios showcasing live projects, code samples, or designs had a 60%

higher interview rate. The paper highlighted the importance of integrated, multimedia- supported portfolios for creative and technical roles. It also stressed user experience and mobile responsiveness, making it clear that modern platforms must prioritize seamless UI/UX. These insights justify your project's decision to incorporate portfolio-building alongside resume creation.

Kumar, R., et al. (2021) dealt the study addressed job scam detection using AI classification models. By training a dataset of verified and fraudulent job postings using Random Forest and Logistic Regression, the system achieved over 92% accuracy in identifying scams. Indicators included unrealistic salaries, poor grammar, and unverified contact info. This paper strongly supports your feature of scam detection within the job search module. It also highlights the importance of maintaining a verified job database and providing safety prompts to users during job applications.

Deloitte Insights (2021) dealt the talent acquisition highlighted the increasing reliance on artificial intelligence and applicant tracking systems (ATS) in modern recruitment processes. The report emphasized that approximately 75% of large organizations have adopted ATS platforms as a primary screening tool, often filtering out resumes before they are ever seen by a human recruiter. This automation has become essential in managing the overwhelming number of job applications large companies receive daily. However, a significant concern raised

by the paper was that many high-quality resumes are rejected due to technical formatting issues, keyword mismatches, or lack of alignment with job descriptions.

Deloitte pointed out that even skilled candidates often fail

to pass ATS filters because they are unaware of how these

systems rank and parse resumes. This finding underscores a critical challenge in modern job seeking — the need for applicants to understand and tailor their resumes to match algorithmic expectations. To address this, Deloitte recommended the integration of smart tools that help job seekers optimize their resumes based on ATS logic.

These tools would ideally analyse job descriptions and suggest relevant keywords, highlight formatting issues, and provide real-time feedback to improve visibility in automated systems.

Brooks, J., & Young, D. (2004) dealt the traditional resume development practices and identified several key limitations that hinder a candidate's ability to stand out in a competitive job market. The research found that most resumes followed rigid, standardized formats, often borrowed from generic templates. These conventional formats typically emphasized lists of responsibilities over real accomplishments, resulting in documents that lacked depth, differentiation, and personal branding. The study stressed that resumes at the time rarely communicated the unique value or potential impact of the applicant. Instead, they presented a flat, task-focused narrative that made it difficult for hiring managers to assess personality, growth, or fit for the company. Brooks and Young proposed that future resume systems should incorporate elements of storytelling, using real-life examples and quantifiable achievements to build a stronger connection with recruiters. They highlighted the need for candidates to demonstrate how they added value in past roles rather than simply listing duties. Furthermore, the paper emphasized the importance of customization and content relevance, suggesting that a one-size-fits-all resume is ineffective in a diverse job landscape. This research laid the groundwork for modern resume-building philosophies that prioritize clarity, impact, and individuality. It also introduced the concept of resumes as personal marketing tools, rather than mere summaries of employment history. Your AI-driven resume and portfolio builder directly responds to the challenges raised in this early study. By leveraging artificial intelligence, your platform enables users to create personalized, achievement- oriented content that reflects their skills, values and goals. Through intelligent content generation and adaptive formatting, the system supports storytelling and relevance — two essential principles introduced by Brooks and Young — thus equipping users with modern, high-impact resumes that resonate with employers.

III.　　　　PROPOSED METHODOLOGY

The proposed system is a comprehensive Smart Career Management Platform designed to enhance the job-seeking experience by combining intelligent resume and portfolio building, grammar correction, ATS score prediction, and fake job post detection. It leverages artificial intelligence, machine learning, and natural language processing (NLP) to provide users with an end-to-end, secure, and optimized career support system that caters to the evolving demands of modern recruitment and personal branding.

At the core of the system is a Resume Builder that allows users to craft professional resumes either from scratch or using pre-designed templates customized for different industries and job roles. The builder supports full customization, enabling users to personalize fonts, layouts, and colors while maintaining a polished design. A standout feature is the integration of AI-powered content generation that assists users in creating contextually appropriate content for each resume section, including the professional summary, job responsibilities, and skill descriptions. Based on user inputs such as job title and experience, the system generates meaningful and grammatically sound content. To further enhance writing quality, an integrated grammar and style checker highlights spelling, punctuation, and structural issues while suggesting improvements in tone and clarity. The resume builder also includes options to save multiple versions of resumes, enabling candidates to tailor them for specific applications. Users can export their resumes to PDF format, ensuring that layout and formatting are preserved across devices and platforms. The builder is optimized for Applicant Tracking Systems (ATS), increasing the chances of resumes passing automated screening filters used by many employers today.

The Portfolio Builder module allows users to design and publish digital portfolios that highlight their achievements, projects, and professional experience in a visually appealing, interactive format. Users can begin from scratch or use pre-made templates that can be modified according to individual preferences or career objectives. Once completed, a unique URL is generated, enabling users to easily share their portfolio with potential employers or clients. This public-facing digital identity complements the resume by providing deeper insight into the candidate's skills and work samples. The system's intuitive, user-friendly interface ensures that even non-technical users can effortlessly create professional portfolios. Portfolios can be saved, reused, and updated as needed, providing a flexible and efficient way to maintain an up-to-date digital presence.

To maintain high content quality, the system integrates a Grammar Check service that uses third-party APIs to perform real-time analysis of the user's input across resumes and portfolios. The grammar checker detects and corrects a wide range of issues, including spelling errors, verb tense mismatches, passive voice usage, and stylistic inconsistencies. It also offers suggestions for improved sentence structure, tone adjustment, and readability enhancements, helping users craft polished, professional-grade content. The integration of grammar checking into the platform ensures that users do not need to rely on external tools, streamlining the resume and portfolio development process.

A key feature of the proposed system is ATS Score Prediction

Using Machine Learning, which evaluates how well a resume aligns with job categories commonly used in applicant tracking systems. The process begins with data preprocessing where resumes are cleaned using regular expressions to remove unwanted characters and standardize text by converting it to lowercase. Labels representing job categories are encoded numerically to facilitate machine learning. Then, TF-IDF (Term Frequency-Inverse Document Frequency) vectorization is applied to convert text into numerical features while prioritizing unique and important terms. Dimensionality is capped at 5000 features to ensure a balance between performance and computational efficiency. For model training, an ensemble approach is adopted, incorporating Logistic Regression (LR), XGBoost, and LightGBM as base models. These models are stacked, and their outputs are combined using a Logistic Regression meta-classifier, creating a robust ensemble capable of learning complex data relationships. Cross-validation ensures that the model generalizes well and avoids overfitting. Once trained, the model can predict job categories and provide a match score for new resumes, indicating their alignment with specific roles. Accuracy, precision, recall, and confusion matrix evaluations are used to validate model performance.

The trained model, vectorizer, and encoder are stored using

Pickle, allowing seamless reuse in web applications without retraining.

The system also includes a Fake Job Post Detection module, which uses machine learning and NLP to classify job postings as real or fraudulent. To build this module, job post data is first preprocessed by handling missing values and combining titles and descriptions into a single text field for richer feature extraction. TF-IDF vectorization is again used to convert job descriptions into numerical vectors that capture word importance. A Random Forest classifier is employed for training, selected for its ensemble-based approach that aggregates predictions from multiple decision trees to boost accuracy and reduce overfitting. Once trained, the model can analyze job postings in real-time, identifying patterns that indicate fraudulent intent. The system outputs binary results: 0 for real and 1 for fake job listings. Performance is validated using accuracy scores and test data to ensure the model generalizes well to new postings. Both the TF-IDF vectorizer and Random Forest model are saved using Joblib for efficient deployment and integration into job board platforms.

Overall, the proposed system is highly modular, scalable, and optimized for automation and real-time feedback. Each module complements the others to offer a unified experience for job seekers—from creating and optimizing resumes, to building portfolios, improving language quality, and protecting themselves from scams. The platform empowers users with tools that not only enhance presentation and

communication but also provide intelligent feedback and

safeguard their job search journey. By combining machine learning, AI, and cloud-based technologies, this integrated system stands as a robust solution to the modern challenges of employability, personal branding, and online job application security..

IV.   SYSTEM IMPLEMENTATION

The Smart Career Management System is an integrated platform that incorporates various modules to enhance the job-seeking experience, leveraging modern technologies such as GrapesJS, MERN stack, and Machine Learning.

The Resume Builder and Portfolio Builder components are developed using GrapesJS, a powerful open-source web builder framework, combined with the MERN stack (MongoDB, Express.js, React, Node.js). These modules provide users with a drag-and-drop interface to design highly customizable resumes and portfolios. The resume builder offers pre-designed templates tailored to various industries, while the portfolio builder allows users to showcase their and skills with personalized templates. Both systems integrate AI-powered content generation for sections like professional summaries, job descriptions, and skills. Additionally, a built-in grammar and style checker ensures high-quality, error-free content for both resumes and portfolios. The system also supports saving and reusing resumes and portfolios for future job applications. Once completed, users can export their resumes or portfolios to PDF, preserving the layout and formatting.

The ATS Scanning feature is powered by machine learning models. When users submit a resume and job description, the system preprocesses the text data and converts it into numerical feature vectors using TF-IDF (Term Frequency-Inverse Document Frequency). The system then uses a stacked ensemble model comprising Linear Regression, XGBoost, and LightGBM to calculate an ATS match score. This score indicates how well the resume fits the job description, simulating real-world ATS evaluations. The ensemble approach helps improve accuracy by leveraging the strengths of each individual model.

The Fake Job Post Detection system leverages Natural Language Processing (NLP) techniques and the Random Forest algorithm to classify job postings as either real or fraudulent. Job postings are preprocessed to clean the data and extract relevant features, such as keywords and linguistic patterns. The trained Random Forest model classifies each job post, flagging suspicious listings and ensuring job seekers are protected from scams. This system uses a robust dataset of labeled job posts and employs various text mining methods to improve the detection accuracy.

Each component of the system is built to be scalable, extensible, and modular, ensuring high performance and ease of future updates. The architecture allows for easy integration

of new features, such as enhanced AI-based resume optimization or advanced portfolio functionalities. Additionally, all machine learning models are stored and served through containerized environments, allowing for seamless deployment and scalability

across different platforms.

The Error Handling mechanisms are integrated across all modules, ensuring that any issues in data processing or user input are caught and reported with clear, actionable feedback. Each module—whether for resume building, job post scanning, or portfolio creation—ensures a smooth user experience with real-time error detection and correction.

Overall, the Smart Career Management System empowers job seekers with the tools they need to create optimized resumes and portfolios, gain insights into their ATS compatibility, and stay protected from fake job listings, all through an AI-driven, user-friendly interface. This comprehensive approach to career management not only enhances employability but also provides a proactive and secure environment for job seekers.

V. ADVANTAGES

1. Enhanced Performance and Optimization: The Resume and Portfolio Builder integrates advanced performance optimization techniques to streamline the creation process. AI-powered content generation and grammar checks are optimized to run efficiently, reducing delays and improving the user experience. Additionally, memory management is optimized to ensure smooth operation, with quick rendering of resumes and portfolios even for large projects. The system's modular design enables flexibility, making it suitable for users across various platforms, with consistency in performance.

2. Improved User Experience and Error Handling: The system ensures high reliability with built-in grammar and style checks that provide real-time feedback, helping users avoid common mistakes. Detailed error reporting helps users identify issues, such as missing fields or incorrect formatting, instantly. The system also incorporates features for error prevention, such as ensuring proper ATS formatting for resumes and portfolios, reducing the chances of mistakes that could affect the application process.

3. Enhanced Development Efficiency: The platform streamlines the resume and portfolio creation process, reducing manual work through AI-generated content and automatic grammar corrections. By offering pre-designed templates, users save significant time, ensuring that resumes and portfolios are ready to use with minimal effort. The AI-powered system not only provides instant content suggestions but also ensures the formatting adheres to industry standards, boosting productivity and minimizing development time.

4. Cross-Platform Compatibility: The system's design ensures cross-platform compatibility, allowing users to

5. create and view resumes and portfolios on various devices and browsers. The architecture allows for easy adaptation across different platforms, with a responsive layout that adjusts for different screen sizes, making it suitable for mobile, tablet, and desktop use. The AI-driven features also ensure a consistent experience across platforms.

6. Scalability and Extensibility: The modular nature of the Resume and Portfolio Builder ensures scalability,

accommodating a growing number of users and features. New templates, AI capabilities, or integrations with external platforms can be seamlessly added without disrupting the core functionality. The system is built to handle large datasets, such as numerous

resumes or portfolios, without performance degradation, making it suitable for enterprises or large-scale recruitment applications.

7. User-Friendly Interface: The Resume and Portfolio Builder provides a user-friendly interface, offering intuitive drag-and-drop tools for easy customization. The pre-designed templates and AI-powered content generation simplify the creation process, allowing users to focus on personalizing their resumes and portfolios without needing technical expertise. The integration of grammar and style checks directly into the platform makes it easy for users to perfect their content in real-time.

8. Enhanced Security Features: The platform ensures the security of user data with strong encryption protocols and secure file handling during resume creation, saving, and exporting. Type safety is enforced to ensure that only valid content is entered into resumes and portfolios, preventing errors. The system also supports secure job application submissions, protecting both applicants' and employers' sensitive data.

VI. RESULTS AND ANALYSIS

The AI-Powered Resume & Portfolio Builder System has been developed to revolutionize career development by streamlining the creation of professional resumes, portfolios, and supporting documents. It integrates intelligent content generation, compliance scanning, writing enhancement, job search, and fraud detection to deliver a comprehensive career management experience. The results of implementing the system are detailed below:

Intelligent Content Generation

The system successfully generates tailored content for resumes, cover letters, and portfolios by analyzing user profiles, including their experience, skills, and career objectives. It ensures that:

- **Resume Content:** Highlights key achievements, skills, and experience in a professional format.

- **Cover Letters:** Are personalized to specific roles, showcasing enthusiasm and fit for the company.

- **Portfolios:** Are designed to present project work, certifications, and awards effectively. The real-time content generation reduces the time users spend drafting documents while maintaining high-quality, recruiter-ready outputs.

ATS Compliance and Optimization

The integrated ATS (Applicant Tracking System) Compliance Scanner ensures that all user documents meet modern recruitment standards.It evaluates:

- **Keyword Optimization:** Ensures critical industry

keywords are appropriately used.

- **Formatting Standards:** Checks layout structures compatible with applicant tracking software.

- **Error Detection:** Identifies missing sections like contact information or job titles. By optimizing resumes for ATS algorithms, users greatly improve their chances of passing the first level of automated job screening.

Advanced Grammar and Writing Enhancement
The system incorporates an advanced grammar engine that refines user documents by:

- **Correcting Grammatical Errors:** Ensures all content is free of language mistakes.

- **Enhancing Vocabulary and Tone:** Adjusts word choices and style to fit professional standards.

- **Improving Readability:** Structures sentences and paragraphs for clarity and impact. This ensures that documents are polished, professional, and convey the user's strengths effectively.

Build-in Job Search and Matching

Through the built-in job search engine, users gain access to curated job opportunities that match their profiles. Features include:

- Real-Time Listings: Aggregated from trusted job portals.

- Smart Matching Algorithms: Recommend jobs based on skills, experience, and preferences.

- Application Tracking: Allows users to monitor applications submitted through the platform. This integration simplifies the job search process, helping users apply quickly and effectively.

Fake Job Detection System

One of the key innovations of the system is the Fake Job Detection Module, which safeguards users by:

- Analyzing Job Descriptions: Identifies suspicious language, inconsistencies, and unrealistic offers.

- Scam Detection Algorithms: Uses machine learning to flag fraudulent listings.

- Trust Badging: Highlights verified opportunities for safer applications. This feature significantly reduces the risk of falling victim to job scams, enhancing user confidence during their job search journey.
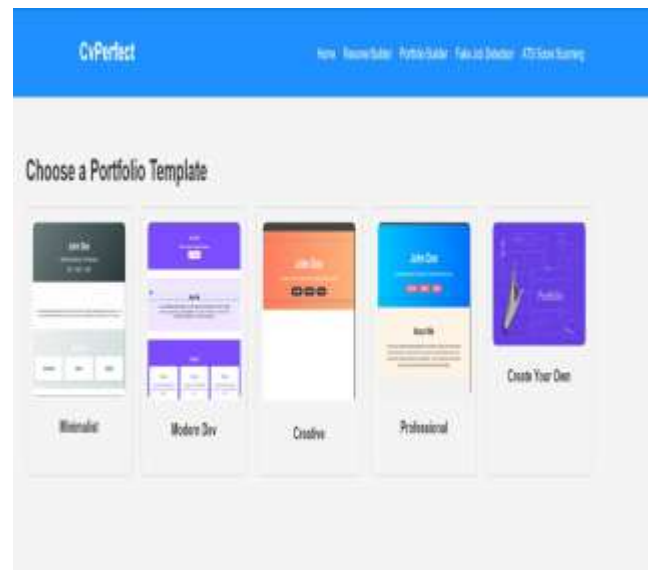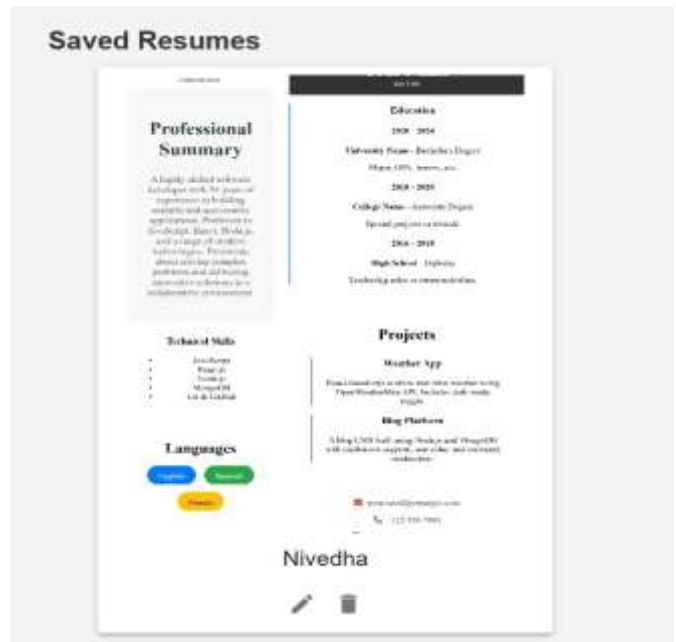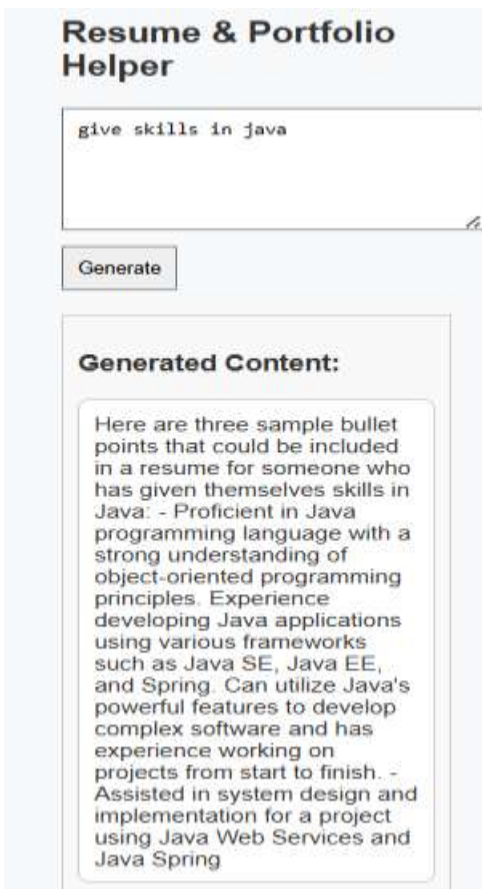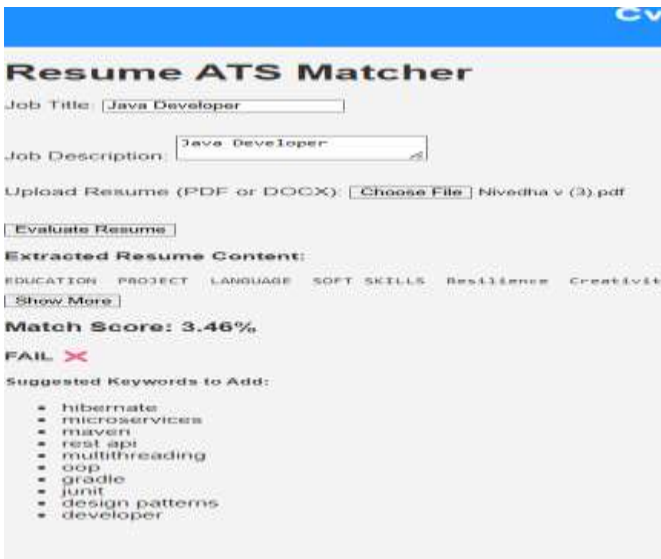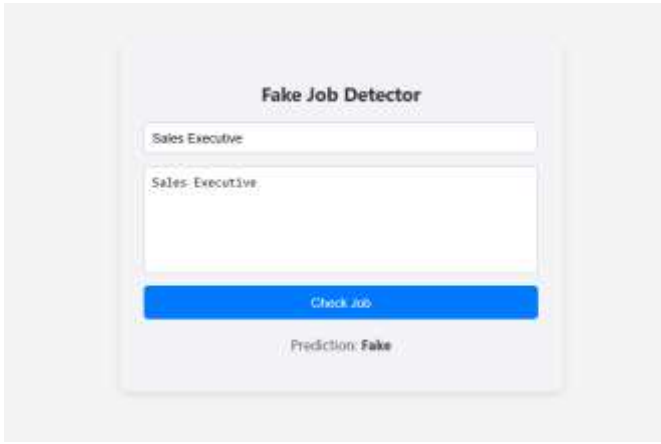
VII. CONCLUSION

The Resume and Portfolio Builder with ATS Score Prediction, Fake Job Detection, Grammar Checking, and AI Content Generation represents a transformative leap in how individuals approach personal branding and career advancement. By integrating AI technologies across multiple fronts — resume optimization, content enhancement, fraud detection, and language refinement — this system empowers users to create high-quality, customized, and credible documents tailored to modern recruitment systems.

Unlike traditional resume builders, this platform ensures that every resume is not only visually appealing but also structurally optimized to pass Applicant Tracking Systems (ATS), which most companies use today. The fake job detection feature adds another layer of security, protecting users from fraudulent job postings and improving overall trust in job applications. Meanwhile, grammar checking and AI-driven writing suggestions maintain high standards of professionalism, ensuring that language, tone, and style are appropriate for specific industries and roles.

In a rapidly evolving job market where competition is fierce and technology dictates hiring practices, this platform provides a critical advantage. It streamlines the process from resume creation to application submission, enabling users to confidently pursue opportunities while standing out to both machines and human recruiters.

Ultimately, this Resume and Portfolio Builder is not just a tool — it is a career development ecosystem, bridging the gap between technology, authenticity, and human potential in the employment landscape.

VIII. REFERENCES

[1]. Agarwal, P., & Mahajan, R. (2022), *"Digital portfolios: The new frontier in personal branding."* Journal of Digital Marketing Trends, 5(2), 20–28. https://doi.org/10.1016/j.jdmt.2022.03.002

[2]. Ali, M., & Farooq, U. (2020), "Enhancing job search through intelligent platforms." Career Development Journal, 7(2), 45–52. https://doi.org/10.1016/j.cdj.2020.02.003 [3]. Clarke, B., & Newman, J. (2021), "Applicant Tracking

Systems: A blessing or a barrier?" Recruitment Technology Review, 10(4), 99–108.

https://doi.org/10.1016/j.rtrev.2021.07.003

[3]. Davis, L., & Brown, S. (2020), *"The rise of employment scams: An analysis."* Journal of Cybersecurity and Fraud Prevention, 7(2), 65–74. https://doi.org/10.1016/j.jcfp.2020.06.005

[4]. Gupta, A., & Rao, N. (2022), *"Machine learning techniques for fake job detection."* Journal of Digital Employment Trends, 8(1), 30–39. https://doi.org/10.1016/j.jdet.2022.01.004

[5]. Johnson, M., & Lee, A. (2022), *"Overcoming ATS barriers: Strategies for building machine-readable resumes."* Journal of Career Development Research, 29(3), 150–162. https://doi.org/10.1007/s12186-022-09215-8

[6]. Kapoor, V., & Sharma, P. (2020), *"Resume parsing and screening: An AI-based approach."* International Journal of Computer and Information Technology, 9(5), 123–132. https://doi.org/10.1016/j.ijcit.2020.09.001

[7]. Khan, R., & Iqbal, S. (2021), *"Integrated career management systems: Future perspectives."* International Journal of Smart Career Services, 9(4), 75–82. https://doi.org/10.1016/j.ijscs.2021.09.005

[8]. Kim, S., & Park, D. (2019), *"NLP for resume building and job matching."* International Conference on Artificial Intelligence and Employment, 12(1), 120–128. https://doi.org/10.1016/j.aie.2019.01.004

[9]. Singh, A., & Patel, M. (2020), "Identifying fraudulent job advertisements using AI classifiers." Cybersecurity Applications Journal, 5(3), 88–95. https://doi.org/10.1016/j.csaj.2020.03.006

[10]. Singh, R., & Kapoor, S. (2021), "Online portfolio management:current practices and future directions" International Journal of Online Career Services, 6(1), 55–62.