

CareerPilot Website

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Dr.Ahmed Alnoqrashy

Abstract

This project focuses on developing an innovative web platform aimed at assisting students and job-seeking individuals of all ages in creating professional portfolios and enhancing their career readiness. Building a portfolio is made easier by the platform, and it can be readily exported as a resume, cover letter, or other professional documents. By collecting user information post-login, the system customizes the portfolio creation experience and adapts its features to meet individual needs. Additionally, the platform offers personalized course recommendations based on the user's profile and insights derived from similar users' activities. It promotes networking by allowing users to interact with like-minded people. The website also delivers specialised employment recommendations based on the user's qualifications and interests. One notable element of the site is its AI-powered video interview simulation. This tool uses speech recognition and conversational AI to simulate real-life interview circumstances, giving users an engaging and immersive experience to help them improve their interview abilities. The platform's multidimensional strategy enables users to improve their professional presence, upskill successfully, and achieve their career objectives.

Introduction

Presenting oneself professionally is important but difficult in today's competitive job market. This project presents an integrated web platform that helps students and job seekers build professional portfolios, network with like-minded people, and get ready for interviews. The platform enables users to easily and confidently accomplish their professional goals by streamlining career development chores and providing customised support.

Problem Statement

In today's competitive job market, students and job seekers face considerable hurdles in effectively communicating their talents, experiences, and qualifications. Traditional methods to building professional portfolios and resumes frequently lack personalisation, advice, and adaptability to particular requirements. Furthermore, many people struggle to find relevant courses for upskilling, network with like-minded professionals, and adequately prepare for interviews, all of which are critical for career advancement. These drawbacks emphasise the need for an integrated platform that streamlines portfolio development, provides targeted learning recommendations, develops meaningful connections, and offers interactive interview practice tools, allowing users to efficiently manage their professional paths.

User Personas

1. **Name:** Sarah Ahmed

- **Age:** 22
- **Occupation:** Recent graduate in Computer Science
- **Goals:**
 - Build a professional portfolio to showcase her academic projects and internships.
 - Find job opportunities in software development.
 - Improve her confidence for technical interviews.
- **Challenges:**
 - Lacks knowledge of current industry trends and essential skills.
 - Finds the resume and portfolio creation process overwhelming.
 - Struggles with interview anxiety and lacks preparation resources.
- **Needs:**
 - An intuitive platform to create a polished portfolio and CV.
 - Recommendations for relevant courses to fill knowledge gaps.
 - Mock interview practice to gain confidence.

2. **Name:** James Allison

- **Age:** 34
- **Occupation:** Marketing Professional transitioning to Digital Marketing
- **Goals:**

- Showcase his past experience while emphasizing his shift to digital marketing.
 - Network with professionals in his new field.
 - Discover certification programs that align with current digital marketing trends.
 - **Challenges:**
 - Difficulty articulating transferable skills in his resume.
 - Limited connections in the digital marketing industry.
 - Unsure of which certifications will add the most value to his career.
 - **Needs:**
 - A platform to craft a portfolio that highlights transferable skills.
 - Networking opportunities to connect with experienced digital marketers.
 - Curated course recommendations for career transition.
3. **Name:** riyadh Mahmoud

- **Age:** 29
 - **Occupation:** Freelance Graphic Designer
 - **Goals:**
 - Maintain an updated portfolio to attract more clients.
 - Learn new design tools and trends to remain competitive.
 - Explore opportunities to collaborate with other designers.
 - **Challenges:**
 - Finds it hard to regularly update her portfolio with new projects.
 - Struggles to stay informed about industry trends.
 - Limited access to meaningful networking opportunities.
 - **Needs:**
 - A platform to easily update her portfolio.
 - Insights into courses on advanced design tools and techniques.
 - Opportunities to connect with other creatives and potential clients.
4. **Name:** Abdul Rahman

- **Age:** 45
- **Occupation:** Experienced Mechanical Engineer seeking managerial roles
- **Goals:**
 - Highlight his extensive experience in a professional format.
 - Discover leadership and management courses to enhance his skill set.
 - Prepare for panel interviews to secure managerial positions.
- **Challenges:**
 - Adapting to modern tools for portfolio creation.
 - Balancing upskilling with a full-time job.
 - Limited exposure to contemporary interview practices.
- **Needs:**
 - A user-friendly platform to create a detailed yet concise CV.

- Tailored course recommendations focusing on leadership and management.
 - Advanced mock interview scenarios to practice strategic thinking.
5. **Name:** Layla mohammed
- **Age:** 17
 - **Occupation:** High school student exploring career options
 - **Goals:**
 - Build a basic portfolio for college applications.
 - Explore courses and career paths that align with her interests in biology.
 - Connect with mentors or peers in the field of biology.
 - **Challenges:**
 - Limited understanding of professional documentation and its importance.
 - Difficulty finding beginner-friendly resources for skill development.
 - Lack of exposure to networking opportunities in her field of interest.
 - **Needs:**
 - A simplified portfolio builder for beginners.
 - Introductory course recommendations based on her interests.
 - Access to a community of students and professionals in biology.

Each persona represents a key demographic and their specific needs, ensuring the platform caters to diverse users across various stages of their career journey.

Requirements

1. **Functional:**
 - **User Registration and Profile Management:**
 - Users can create accounts by providing necessary personal information.
 - Account creation includes email verification for security.
 - Users can update and maintain their personal data.
 - **File Upload:**
 - Users can upload their CVs in various formats (e.g., PDF, DOCX).
 - Users can import data from other platforms (LinkedIn, github, etc) to populate their CV profile.
 - **Portfolio Builder:**
 - Users can create, edit, and customize portfolios.

- Users can export their portfolios in multiple formats (e.g., PDF, Word, or as a printed document).
- The system extracts key details (name, contact information, skills, education, and work experience) from the uploaded CV using AI-powered parsing tools.
- Parsed information is used to auto-fill application forms, saving time for users.
- **Networking Features:**
 - Users can search for and connect with other users based on shared interests or professional goals.
 - The platform supports messaging and collaborative features for professional networking.
- **Browse course and enrollment:**
 - A searchable catalog with filters (e.g., category, difficulty level, and price) allows users to examine the courses that are available.
 - Insight into the course material is provided by thorough course descriptions and previews.
 - Users can enroll in courses with a simple click and proceed to secure payment options for paid courses.
 - Enrollment history is stored for easy tracking of past and ongoing courses.
- **Job Recommendations:**
 - The platform provides personalized job recommendations based on user profiles.
 - Users can filter job listings by location, role, or other parameters.
- **Interview with Ai:**
 - The system generates personalized questions based on the selected domain or role
 - Questions are categorized into various levels of difficulty.
 - Users can receive feedback on their performance, including communication skills, confidence, and responses.
 - Adaptive questioning that helps users engage in a realistic and challenging dialogue.
- **Advanced Search:**
 - Users can search for jobs using filters
 - Real-time notifications for new job postings matching saved searches.
 - A keyword-based search for refining results based on specific criteria.
 - Recruiters can search for candidates using filters

- Both job seekers and recruiters receive search insights
 - Suggested search improvements based on user activity and market trends.
 - **Career Planning:**
 - Personalized Course Recommendations
 - Dynamic updates to recommendations as users complete courses or update their profiles.
 - Predefined roadmaps for various career paths
 - Users can design personalized learning paths by selecting courses, certifications, and projects.
 - Integration with third-party course providers (e.g., Coursera, Udemy).
 - Users earn badges for completing courses, acquiring certifications, or achieving milestones in their career roadmaps that can be displayed on their profiles.
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2. Nonfunctional:

1. Performance:

- The web application should load within 3 seconds for 90% of users.
- Response time for critical operations (Sign up/Login/Logout) should be less than 1 second.
- The system should support a minimum of 2,000 concurrent users without significant performance degradation.

2. Scalability:

- The application should scale horizontally to accommodate growing user bases.
- Database architecture should be scalable to handle a 20% annual growth in user data.
- Integration with cloud services for seamless data handling and storage.

3. Security:

- Ensure that sensitive user data is encrypted during transmission and storage.
- Two-factor authentication (2FA) for user accounts is mandatory.

4. Reliability:

- The application should have an uptime of at least 99.9%.
- Backups of user data should occur daily, with a recovery point objective (RPO) of no more than 24 hours.

- The platform must gracefully handle unexpected failures, with automatic recovery mechanisms in place.
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Conclusion

This platform provides a seamless and comprehensive solution for students and job seekers to create professional portfolios, enhance their skills, and prepare for career opportunities. By combining intuitive portfolio building, personalized recommendations, networking features, and AI-powered interview simulations, it simplifies the journey toward professional success. With its innovative and user-friendly approach, the platform equips individuals to confidently showcase their talents, connect with opportunities, and achieve their career aspirations.