**Software Requirements Specification (SRS) Resume Parser System**

**Version 1.0**

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For Fundamentals of Software Engineering (FSE) Project

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**0.1 Document History**

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| --- | --- | --- | --- |
| **Version** | **Name of Person** | **Date** | **Description of Change** |
| 1.0 | Haris Ahmed | May 5, 2025 | Document Created |

Table 1: Document History

**0.2 Distribution List**

|  |  |
| --- | --- |
| **Name** | **Role** |
| Fizza Mansoor | Supervisor |
| Syed Huzaifa Ali | Backend Developer |
| Haris Ahmed | Frontend Developer |
| Syed Areeb Hussain | Frontend Developer |

Table 2: Distribution List

**0.3 Document Sign-Off**

|  |  |  |
| --- | --- | --- |
| **Version** | **Sign-off Authority** | **Sign-off Date** |
| 1.0 | Fizza Mansoor | May 7, 2025 |

Table 3: Document Sign-Off

**0.4 Introduction**

**0.4.1 Purpose of Document**

This Software Requirements Specification (SRS) outlines the requirements for the Re- sume Parser System, an AI-powered platform designed to streamline job applications and recruitment processes for candidates and recruiters. It serves as a guide for devel- opers, stakeholders, and end-users to understand the system’s functionalities, interfaces, and constraints.

**0.4.2 Intended Audience**

• Project Team (Developers, Designers, Testers)

• Stakeholders (Candidates, Recruiters, HR Departments)

• Supervisors (Academic or Project Supervisors)

**0.4.3 Abbreviations**

• AI: Artificial Intelligence

• PDF: Portable Document Format

• DOCX: Microsoft Word Document

• SRS: Software Requirements Specification

• REST: Representational State Transfer

• HTTP: Hypertext Transfer Protocol

• HTTPS: Hypertext Transfer Protocol Secure

**0.4.4 Document Convention**

• Font: Times New Roman, 12pt

• Headings: Bold, larger font size

• Tables: Used for structured data

**0.5 Overall System Description**

**0.5.1 Project Background**

The Resume Parser System addresses the need for an eﬀicient platform to facilitate job applications and recruitment. By leveraging AI, it automates resume parsing, skill ex- traction, and job matching, enhancing user experience for both candidates and recruiters.

**0.5.2 Project Scope**

The system includes:

• **Candidates**: Profile management, resume uploading, job searching, application tracking.

• **Recruiters**: Job listing management, resume parsing, application review, candi- date searching.

• **AI Features**: Resume parsing, skill extraction, match scoring, resume feedback.

**0.5.3 Not In Scope**

• Payment processing

• Social media integration

• Advanced analytics or reporting (unless specified)

**0.5.4 Project Objectives**

• Simplify job applications for candidates.

• Provide recruiters with eﬀicient tools for job and candidate management.

• Enhance resume parsing and job matching using AI.

**0.5.5 Stakeholders**

• Candidates: Job seekers

• Recruiters: HR professionals or hiring managers

• Project Team: Developers, designers, testers

• Supervisors: Academic or project supervisors

**0.5.6 Operating Environment**

• Web-based application accessible via browsers (e.g., Chrome, Firefox, Safari).

• Compatible with desktop and mobile devices.

• Requires internet connectivity.

**0.5.7 System Constraints**

• Must support PDF and DOCX resume formats.

• Must ensure data security and privacy.

• Must be mobile-responsive.

**0.5.8 Assumptions & Dependencies**

• Assumes users have internet access.

• Depends on a backend database for data storage.

• Assumes AI models for resume parsing are available or will be integrated.

**0.6 External Interface Requirements**

**0.6.1 Hardware Interfaces**

Standard web-based application; no specific hardware requirements beyond a computer or mobile device with a browser.

**0.6.2 Software Interfaces**

• Interfaces with databases (e.g., MySQL, PostgreSQL) for data storage.

• Integrates with AI services for resume parsing and analysis.

• Uses email services for notifications.

**0.6.3 Communications Interfaces**

• Web-based communication using HTTP/HTTPS.

• RESTful APIs for backend services.

• Email notifications for users.

**0.7 Functional Requirements**

**0.7.1 Functional Hierarchy**

• **Login/Signup**

**–** User authentication

**–** Role selection (Candidate/Recruiter)

• **Candidate Panel**

**–** Dashboard: Profile completion, job listings, application statuses

**–** Profile Management: Edit personal info, upload resume, view AI analysis

**–** Resume Management: Upload, edit, receive feedback

**–** Job Search: Browse/filter jobs, view details, match percentage

**–** Application Management: Apply, track statuses, view history

• **Recruiter Panel**

**–** Dashboard: Job listings, applications, recent activity

**–** Company Profile: Manage details, logo

**–** Job Management: Create/edit/remove listings, view stats

**–** Resume Parsing: Analyze resumes, extract info, match profiles

**–** Application Review: View, analyze, update statuses, contact candidates

**–** Candidate Search: Search/filter candidates, view profiles, compare

• **AI Analysis Features**

**–** Resume Parsing: Extract and categorize information

**–** Skill Extraction: Identify and categorize skills

**–** Match Scoring: Calculate resume-job match percentages

**–** Resume Feedback: Suggest improvements

• **General Features**

**–** User Authentication: Secure login, password reset

**–** Notifications: Email and in-app

**–** Navigation: Intuitive, mobile-responsive

**–** Logout: Secure session termination

**0.7.2 Use Cases**

**Use Case: Candidate Uploads Resume**

• **Use Case ID:** UC001

• **Actors:** Candidate

• **Feature:** Resume Management

• **Pre-condition:** Candidate is logged in

• **Scenarios:**

1. Candidate selects “Upload Resume” from the menu.

2. System displays a file upload dialog.

3. Candidate selects a resume file (PDF or DOCX) and uploads it.

4. System parses the resume using AI and extracts key information (name, con- tact, education, experience, skills).

5. System displays the extracted information for review.

6. Candidate can edit the extracted information if needed.

7. Candidate saves the resume.

• **Post Conditions:** Resume is saved and associated with the candidate’s profile.

**Use Case: Recruiter Posts a Job**

• **Use Case ID:** UC002

• **Actors:** Recruiter

• **Feature:** Job Management

• **Pre-condition:** Recruiter is logged in

• **Scenarios:**

1. Recruiter selects “Create Job Listing” from the menu.

2. System displays a form to enter job details (title, location, required skills, description, etc.).

3. Recruiter fills in the job details and submits the form.

4. System validates the input and saves the job listing.

5. System displays a confirmation message with the job listing ID.

• **Post Conditions:** Job listing is created and available for candidates to apply.

**Use Case: Candidate Applies for a Job**

• **Use Case ID:** UC003

• **Actors:** Candidate

• **Feature:** Application Management

• **Pre-condition:** Candidate is logged in and has a saved resume

• **Scenarios:**

1. Candidate browses job listings and selects a job.

2. System displays job details and match percentage.

3. Candidate clicks “Apply” and optionally uploads a cover letter.

4. System submits the application with the candidate’s resume.

5. System confirms application submission and updates status to “Applied.”

• **Post Conditions:** Application is submitted and visible to the recruiter.

**0.8 Non-functional Requirements**

**0.8.1 Performance Requirements**

• The system should handle at least 100 concurrent users.

• Resume uploading and parsing should complete within 10 seconds.

• Job search results should be displayed within 2 seconds.

**0.8.2 Safety Requirements**

• The system should ensure personal data is handled securely and complies with data protection regulations (e.g., GDPR).

**0.8.3 Security Requirements**

• Implement secure authentication (HTTPS, password hashing).

• Protect against web vulnerabilities (SQL injection, XSS, CSRF).

• Ensure only authorized users access sensitive data.

**0.8.4 User Documentation**

• Provide user manuals for candidates and recruiters.

• Include help sections within the application.

• Offer tutorials or guides on key features.

**0.9 References**

• Project Detail Resume Parser.pdf

• IEEE Standard for Software Requirements Specifications (IEEE Std 830-1998)

**0.10 Appendices**

(Include additional diagrams, such as use case or data flow diagrams, if required.)