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| **Software Requirement Specifications**  TalentMatch - Applicant Tracking System  (ATS)  Version: 1.0   |  |  | | --- | --- | | Project Code | 21F-ATS | | Supervisor | Rizwan Ali Abro | | Co-Supervisor |  | | Project Team | Vishaka Pahuja  Mohammad Yaqoob | | Submission Date |  |   **Supervisor's Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_** |

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Distribution List

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| **Name** | **Role** | |
| Rizwan Ahmed Abro | | Supervisor |
| Vishaka Pahuja | | Project Lead |
| Mohammad Yaqoob | | Project Member |

Document Sign-Off

|  |  |  |  |
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| **Version** | **Sign-off Authority** | **Project Role** | **Sign-off Date** |
| 1.0 | Rizwan Ahmed Abro | Project Supervisor |  |

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1. Introduction

* 1. Purpose of Document

The document is developed to go deep inside the requirements of the project. When we talk about software development Software Requirement Specification (SRS) is the document on which our whole software depends upon, simply we can see this the basis for entire project. SRS is a detailed description of the system to be developed. This document includes functional and non-functional requirements of the system being developed. Software Requirement Specification (SRS) help developers to reduce time and cost to achieve desired goals for a particular software system. When SRS defines how our software system will interact with system hardware, other software programs and humans in different varying real-life situations then we can say it a good SRS.

The main purpose of this document is to define each possible functional and non-functional requirements of the project “Talent Match”. Using this SRS, we can develop our system later to meet the desired system goal, in future decisions can be regarding features by having a glance at this document.

* 1. Intended Audience

This document will be used by the development team of this project. This document would also be helpful for testers and any evaluators to quickly understand the requirements of the system. The supervisor and co-supervisors and FYP evaluation committee will use SRS document to test and verify the system requirements. In addition, if this project is deployed to the public, then the users of this application will have the detailed description of the application.

* 1. Document Convention

This document will be using Arial fonts and font size 11pt for text and 14pt for sub-headings and 16pt for headings

1. Overall System Description
   1. Project Background

Organizations spend extensive time during recruitment because they base hiring decisions on manual resume inspections and interview appointment arrangements which produce hiring delays and biases together with efficiency problems. The need to handle extensive application volumes creates problems that leads organizations to face both higher expenses and lost prospect opportunities.[1]

The AI-Based Applicant Tracking System (ATS) solves recruitment issues through automated resume analysis combined with AI-based procedure for candidate quality assessment and ranking. The automated hiring processes driven by this system result in accelerated selection with unbiased results and boost both hiring speed and candidate quality that decreases human resources demands.[2]

* 1. Project Scope

The discovery for this project is to give HR professionals an AI-based tool that manages hiring process effectively. The system will rank candidates based on their skills and experience, conduct assessments, and schedule interviews seamlessly.[3][4]

We use machine learning techniques for parsing the resume, matching with jobs and assessing candidates to make applicant tracking system (ATS) efficient. Our system incorporates a pretrained BERT (Bidirectional Encoder Representations from Transformers), which we fine-tune for our use case with a collection of resume and job description datasets, which we obtained from Kaggle. Based on skills, experience, and education with respect to the job requirements, this model calculates a compatibility score and decides whether a candidate is ready for the next stage.

HR managers can also monitor the status of candidates, obtain AI-based intelligence. They will notify recruiters and applicants about shortlisting, interview schedule, and status change of an application.[5]

* 1. Not In Scope

The **AI-Based Applicant Tracking System (ATS)** will assist in candidate evaluation and shortlisting but will not make final hiring decisions. HR professionals will be responsible for the selection process. The system will operate independently, with no integration with third-party HR software or job portals in this version. It will be web-based only, with no dedicated mobile application. Scheduling capabilities remain part of the system however video conferencing features are absent from its built-in functionality.[6]

* 1. Project Objectives

The AI-Based Applicant Tracking System (ATS) automates the hiring process, enhancing resume screening, candidate evaluation, and interview scheduling for a faster, unbiased, and efficient recruitment workflow.[7][8][9]

Key objectives include:

* **Automate Resume Screening**
* **Enhance Candidate Evaluation**
* **Streamline Interview Scheduling**
* **Reduce Hiring Bias**
* **Boost HR Productivity**

This system aims to reduce hiring time, improve candidate quality, and optimize recruitment efficiency.

* 1. Stakeholders

The stakeholders of this system include **HR managers and recruiters**, who will manage job postings and evaluate candidates, and **job applicants**, who will submit resumes and take the test as part of the hiring process. **Department heads** may also review shortlisted candidates.

* 1. Operating Environment

The AI-Based Applicant Tracking System (ATS) operates as a web-based application that supports access through Google Chrome, Mozilla Firefox and Microsoft Edge. The system operates through the cloud server for enhanced scalability alongside continuous availability.

* 1. System Constraints

The **AI-Based Applicant Tracking System (ATS)** is subject to several constraints that impact its development, deployment, and usage.

**Software Constraints**

* As a requirement the system needs to work with current web browser programs including Chrome and Firefox and Edge.
* Requires integration with existing HR systems and third-party APIs.

**Hardware Constraints**

* The ATS solution depends entirely on server facilities to operate hosting and store data.
* Requires a stable internet connection for optimal performance.

**Cultural Constraints**

* Supports English as the primary language, with possible future multilingual support.
* The system might require regional-specific implementations depending on the needs of Human Resources departments.

**Legal Constraints**

* The data collection process needs to fulfill the requirements of existing data security laws to protect the information of applicants.
* Requires fair hiring practices and non-discriminatory AI models.

**Environmental Constraints**

* This system operates within office spaces while expecting the users to perform assessments in quiet conditions.
* The system needs remote accessibility to meet the needs of recruiters as well as their applicants.

**User Constraints**

* Standard technical capabilities should exist within HR employee proficiencies to operate the system.
* All applicants need digital skills to both upload their applications and take their aptitude tests.

These constraints guide the system’s design, functionality, and compliance requirements, ensuring smooth operation within real-world conditions.

* 1. Assumptions & Dependencies

1. **Assumptions:**

* Users (HR personnel and applicants) have basic digital literacy to interact with the system.
* A stable internet connection is available for seamless operation.
* Organizations using the system will adhere to fair hiring practices and comply with data protection laws.
* The system will be primarily used on desktop and laptop browsers, with mobile responsiveness as an enhancement.

1. **Dependencies:**

* **Cloud Hosting Services:** The system depends on reliable **cloud infrastructure** for storage, processing, and availability.
* **Third-Party APIs:** Integration with email services, calendar systems, and AI-based resume parsing tools is required.

1. External Interface Requirements

An AI Based Applicant Tracking System (ATS) requires various external interfaces for it to work efficiently. They serve as bridges between the hardware, software, and network components of storage systems, ensuring a smooth and efficient data transfer process.

* 1. Hardware Interfaces

The ATS can be accessed on desktops, laptops, and mobile devices), using cloud servers to process and store data.

* 1. Software Interfaces

For HR users, the system will be running on Windows and the data storage will be done using MongoDB. It will integrate AI-powered models [10][6] for resume parsing and ranking. The system will integrate with email services, and HR systems for a seamless workflow.[11]

* 1. Communications Interfaces

ATS will be web-based using HTTPS for secure communication. Notification will be sent via email for the updates, the system needs a stable internet connection.

1. Functional Requirements
   1. Functional Hierarchy

To streamline the hiring process, the AI-Based Applicant Tracking System (ATS) is structured into core modules:

1. User Management – Registration, Login, Profile Management
2. Job Management – Post Jobs, List Jobs, Search & Filtering
3. Application Handling – Upload Resume, AI-Based Ratings, Update Check
4. Assessment & Interviews – Auto Test, Shortlisting, Scheduling
5. Alerts & Notifications – Job Updates, Alerts, Recruitment Insights

This hierarchy Provides automation for HR professionals and candidates which streamlines the workflow.

* 1. Use Cases
     1. Register/Login

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **<Use case Id: Register/Login >** | | | | |
| **Use case Id:** | | ATS-01 | | |
| **Actors:**  Job Seeker (Candidate), HR (Recruiter/Admin) | | | | |
| **Feature:** User Registration and Authentication | | | | |
| **Pre-condition:** | | Users must provide valid credentials or create an account if they don’t have one. | | |
| **Scenarios** | | | | |
| **Step#** | **Action** | | | **Software Reaction** |
| **1.** | User enters username and password. | | | The system validates credentials. |
| **2.** | User clicks "Login" or "Register." | | | System grants access or creates a new account. |
| **Alternate Scenarios** | | | | |
| **1a:** Forgotten password: System directs user to password recovery. | | | | |
| **Post Conditions** | | | | |
| **Step#** | **Description** | | | |
| **1.** | User is redirected to the dashboard. | | | |
| **Use Case Cross referenced** | | | Not Applicable | |

* + 1. Create Profile

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **<Use case Id: Create Profile>** | | | | |
| **Use case Id:** | | ATS-02 | | |
| **Actors:**  Job Seeker (Candidate) | | | | |
| **Feature:** Profile Management | | | | |
| **Pre-condition:** | | User must be logged in. | | |
| **Scenarios** | | | | |
| **Step#** | **Action** | | | **Software Reaction** |
| **1.** | User fills in basic information (name, skills, experience). | | | System validates and saves the profile. |
| **Alternate Scenarios** | | | | |
| **1a:** Missing fields: System prompts the user to complete mandatory fields. | | | | |
| **Post Conditions** | | | | |
| **Step#** | **Description** | | | |
| **1.** | |  | | --- | |  |  |  | | --- | | Profile is successfully created and stored. | | | | |
| **Use Case Cross referenced** | | | Not Applicable | |

* + 1. Search for Jobs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **<Use case Id: Search for Jobs>** | | | | |
| **Use case Id:** | | ATS-03 | | |
| **Actors:**  Job Seeker (Candidate) | | | | |
| **Feature:** Job Search | | | | |
| **Pre-condition:** | | Users must have an active profile. | | |
| **Scenarios** | | | | |
| **Step#** | **Action** | | | **Software Reaction** |
| **1.** | Users search for a job using keywords or filters. | | | System retrieves and displays relevant job listings. |
| **Alternate Scenarios** | | | | |
| **1a:** No matching jobs: System displays "No results found." | | | | |
| **Post Conditions** | | | | |
| **Step#** | **Description** | | | |
| **1.** | Search results are displayed to the user. | | | |
| **Use Case Cross referenced** | | | Not Applicable | |

* + 1. Apply for Job

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **<Use case Id: Apply for Job>** | | | | |
| **Use case Id:** | | ATS-04 | | |
| **Actors:**  Job Seeker (Candidate) | | | | |
| **Feature:** Job Application | | | | |
| **Pre-condition:** | | Users must have an active profile and be logged in. | | |
| **Scenarios** | | | | |
| **Step#** | **Action** | | | **Software Reaction** |
| **1.** | User clicks "Apply" on a job listing | | | The system validates the user's profile and uploads. |
| **2.** | User confirms application. | | | The system stores the application and sends a confirmation. |
| **Alternate Scenarios** | | | | |
| **1a:** Missing profile information: System prompts the user to complete the profile. | | | | |
| **Post Conditions** | | | | |
| **Step#** | **Description** | | | |
| **1.** | |  | | --- | |  |  |  | | --- | | Application is successfully submitted. | | | | |
| **Use Case Cross referenced** | | | Not Applicable | |

* + 1. Upload Resume

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **<Use case Id: Apply for Job>** | | | | |
| **Use case Id:** | | ATS-05 | | |
| **Actors:**  Job Seeker (Candidate) | | | | |
| **Feature:** Resume Upload | | | | |
| **Pre-condition:** | | Users must have an active profile and be logged in. | | |
| **Scenarios** | | | | |
| **Step#** | **Action** | | | **Software Reaction** |
| **1.** | User selects a resume file to upload. | | | The system validates file type and uploads it. |
| **2.** | User confirms the upload. | | | System stores the resume in file storage. |
| **Alternate Scenarios** | | | | |
| **1a:** Invalid file type: System prompts the user to upload a supported format (e.g., PDF, DOC). | | | | |
| **Post Conditions** | | | | |
| **Step#** | **Description** | | | |
| **1.** | |  | | --- | |  |  |  | | --- | | Resume is successfully stored in the system. | | | | |
| **Use Case Cross referenced** | | | Not Applicable | |

* + 1. Get Resume Analyzed

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **<Use case Id: Resume Parsing >** | | | | |
| **Use case Id:** | | ATS-06 | | |
| **Actors:**  System (Automated Process) | | | | |
| **Feature:** Resume Analysis | | | | |
| **Pre-condition:** | | Resume must be uploaded. | | |
| **Scenarios** | | | | |
| **Step#** | **Action** | | | **Software Reaction** |
| **1.** | System retrieves uploaded resume. | | | Parses resume for skills, experience, and education. |
| **2.** | The system matches parsed data with job criteria. | | | |  | | --- | |  |  |  | | --- | | Returns match percentage and relevant details. | |
| **Alternate Scenarios** | | | | |
| **1a:** Parsing error: System retrieves or logs the error for admin review. | | | | |
| **Post Conditions** | | | | |
| **Step#** | **Description** | | | |
| **1.** | |  | | --- | |  |  |  | | --- | | Parsed resume data is available for job matching. | | | | |
| **Use Case Cross referenced** | | | Not Applicable | |

* + 1. Take Automated Assessment

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **<Use case Id: Automated Assessment>** | | | | |
| **Use case Id:** | | ATS-07 | | |
| **Actors:**  Job Seeker (Candidate), System (Automated Process) | | | | |
| **Feature:** Candidate Assessment | | | | |
| **Pre-condition:** | | Resume parsing and job matching must pass criteria. | | |
| **Scenarios** | | | | |
| **Step#** | **Action** | | | **Software Reaction** |
| **1.** | System assigns assessment questions to user. | | | User receives an assessment and completes it. |
| **2.** | |  | | --- | |  |  |  | | --- | | User submits assessment. | | | | System evaluates responses. |
| **Alternate Scenarios** | | | | |
| **1a:** User times out: Assessment is marked incomplete, and application fails. | | | | |
| **Post Conditions** | | | | |
| **Step#** | **Description** | | | |
| **1.** | |  | | --- | |  |  |  | | --- | | Assessment results are stored for review. | | | | |
| **Use Case Cross referenced** | | | Not Applicable | |

* + 1. Notification for Interview or Rejection

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **<Use case Id: Notification for Interview or Rejection>** | | | | |
| **Use case Id:** | | ATS-08 | | |
| **Actors:**  System (Automated Process) | | | | |
| **Feature:** Candidate Notification | | | | |
| **Pre-condition:** | | Assessment must be completed. | | |
| **Scenarios** | | | | |
| **Step#** | **Action** | | | **Software Reaction** |
| **1.** | The system evaluates assessment score. | | | Send an email for an interview or rejection. |
| **Alternate Scenarios** | | | | |
| **1a:** Email delivery fails: System retries or logs the error. | | | | |
| **Post Conditions** | | | | |
| **Step#** | **Description** | | | |
| **1.** | |  | | --- | |  |  |  | | --- | | Candidate receives email notification. | | | | |
| **Use Case Cross referenced** | | | Not Applicable | |

* + 1. Post Job Listing

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **<Use case Id: Post Job Listing>** | | | | |
| **Use case Id:** | | ATS-09 | | |
| **Actors:**  HR (Recruiter/Admin) | | | | |
| **Feature:** Job Posting Management | | | | |
| **Pre-condition:** | | HR must be logged in. | | |
| **Scenarios** | | | | |
| **Step#** | **Action** | | | **Software Reaction** |
| **1.** | |  | | --- | |  |  |  | | --- | | HR enters job details (title, description, criteria, questions). | | | | The system validates and stores the job listing. |
| **Alternate Scenarios** | | | | |
| **1a:** Missing mandatory fields: System prompts the HR to complete the form. | | | | |
| **Post Conditions** | | | | |
| **Step#** | **Description** | | | |
| **1.** | |  | | --- | |  |  |  | | --- | | Job is successfully posted and visible to users. | | | | |
| **Use Case Cross referenced** | | | Not Applicable | |

* + 1. Manage Candidates

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **<Use case Id: Manage Candidates>** | | | | |
| **Use case Id:** | | ATS-10 | | |
| **Actors:**  HR (Recruiter/Admin) | | | | |
| **Feature:** Candidate Management | | | | |
| **Pre-condition:** | | Candidates must have applied for jobs. | | |
| **Scenarios** | | | | |
| **Step#** | **Action** | | | **Software Reaction** |
| **1.** | HR views a list of applicants for a job. | | | |  | | --- | |  |  |  | | --- | | The system retrieves and displays candidate information. | |
| **2.** | HR selects a candidate to review details. | | | System loads the candidate's profile, resume, and assessment results. |
| **Alternate Scenarios** | | | | |
| **1a:** No candidates applied: System displays "No applications found. | | | | |
| **Post Conditions** | | | | |
| **Step#** | **Description** | | | |
| **1.** | |  | | --- | |  |  |  | | --- | | Candidate information is displayed for HR. | | | | |
| **Use Case Cross referenced** | | | Not Applicable | |

* + 1. Edit Assessment Questions

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **<Use case Id: Edit Assessment Questions>** | | | | |
| **Use case Id:** | | ATS-11 | | |
| **Actors:**  HR (Recruiter/Admin) | | | | |
| **Feature:** Assessment Management | | | | |
| **Pre-condition:** | | HR must be logged in. | | |
| **Scenarios** | | | | |
| **Step#** | **Action** | | | **Software Reaction** |
| **1.** | HR opens the assessment question list for a job. | | | System retrieves existing questions from the database. |
| **2.** | HR edits, deletes, or adds new questions. | | | System validates and saves the changes. |
| **Alternate Scenarios** | | | | |
| **1a:** input: System prompts HR to fix errors (e.g., missing answer). | | | | |
| **Post Conditions** | | | | |
| **Step#** | **Description** | | | |
| **1.** | |  | | --- | |  |  |  | | --- | | Updated assessment questions are saved and available for candidates. | | | | |
| **Use Case Cross referenced** | | | Not Applicable | |

* + 1. Schedule Interviews

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **<Use case Id: Schedule Interviews>** | | | | |
| **Use case Id:** | | ATS-12 | | |
| **Actors:**  HR (Recruiter/Admin) | | | | |
| **Feature:** Interview Scheduling | | | | |
| **Pre-condition:** | | The candidate must have passed the assessment. | | |
| **Scenarios** | | | | |
| **Step#** | **Action** | | | **Software Reaction** |
| **1.** | HR selects a candidate from the shortlist. | | | System loads candidate details. |
| **2.** | |  | | --- | |  |  |  | | --- | | HR schedules the date and time for the interview. | | | | The system saves the schedule and notifies the candidate. |
| **Alternate Scenarios** | | | | |
| **1a:** Overlapping schedules: System prompts HR to select a different time. | | | | |
| **Post Conditions** | | | | |
| **Step#** | **Description** | | | |
| **1.** | |  | | --- | |  |  |  | | --- | | The interview schedule is saved, and the candidate is notified. | | | | |
| **Use Case Cross referenced** | | | Not Applicable | |

* + 1. Send Notification

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **<Use case Id: Send Notification>** | | | | |
| **Use case Id:** | | ATS-13 | | |
| **Actors:**  System (Automated Process) | | | | |
| **Feature:** Notification Management | | | | |
| **Pre-condition:** | | System events (e.g., application status change) must occur. | | |
| **Scenarios** | | | | |
| **Step#** | **Action** | | | **Software Reaction** |
| **1.** | |  | | --- | |  |  |  | | --- | | System identifies a trigger event (e.g., interview scheduled). | | | | Send an email or notification to the user. |
| **Alternate Scenarios** | | | | |
| **1a:** Email delivery fails: System retries or logs the error for admin review. | | | | |
| **Post Conditions** | | | | |
| **Step#** | **Description** | | | |
| **1.** | |  | | --- | |  |  |  | | --- | | Notification is sent and logged in the system. | | | | |
| **Use Case Cross referenced** | | | Not Applicable | |

* + 1. View Selected Candidates

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **<Use case Id: View Selected Candidates>** | | | | |
| **Use case Id:** | | ATS-14 | | |
| **Actors:**  HR (Recruiter/Admin) | | | | |
| **Feature:** Candidate Selection | | | | |
| **Pre-condition:** | | Candidates must have completed all required steps (e.g., passed assessment). | | |
| **Scenarios** | | | | |
| **Step#** | **Action** | | | **Software Reaction** |
| **1.** | HR views the list of selected candidates for a job. | | | System retrieves and displays the shortlist. |
| **2.** | HR exports the list if needed. | | | |  | | --- | |  |  |  | | --- | | The system provides the export option in the desired format (e.g., CSV). | |
| **Alternate Scenarios** | | | | |
| **1a:** No selected candidates: System displays "No candidates selected yet." | | | | |
| **Post Conditions** | | | | |
| **Step#** | **Description** | | | |
| **1.** | |  | | --- | |  |  |  | | --- | | Shortlists are displayed or exported for HR use. | | | | |
| **Use Case Cross referenced** | | | Not Applicable | |

1. Non-functional Requirements
   1. Performance Requirements

When the system is loaded with resumes for parsing and filtering and require it to be done quickly and in a timely manner with reports. The system should support a high volume of concurrent users and seamlessly resume uploads without compromising performance, ensuring reliability and responsiveness during peak usage.

* 1. Safety Requirements
* **Data Integrity**: No data loss during upload or data processing.
* **Prevention of Harmful Actions**: Safeguards that avoid unintended modification or deletion of data.[12]
* **Safe UI**: Clear error messages and structured user space.
  1. Security Requirements

Secure User Credential (email and password) will be used for authentication.

* 1. User Documentation

User documentation consists of a manual, context-sensitive online help, tutorials for common tasks, and an FAQ section.

1. References

[1] N. Novaković and L. Dražeta, “Applicant Tracking System: A Powerful Recruiters’ Tool,” SINTEZA, pp. 240–245, Jul. 2024, doi: 10.15308/SINTEZA-2024-240-245.

[2] A. Saad and J. Itika, “An Investigation of the Transformation Process from Manual to E-Recruitment in Tanzania Public Service,” J. Public Policy Adm., vol. 9, no. 1, pp. 1–19, 2024, doi: 10.47604/jppa.2254.

[3] P. R. Chavan, Y. Chandurkar, A. Tidake, G. Lavankar, S. Gaikwad, and R. Chavan, “Enhancing recruitment efficiency: An advanced Applicant Tracking System (ATS),” Ind. Manag. Adv., vol. 2, no. 1, p. 6373, 2024, doi: 10.59429/ima.v2i1.6373.

[4] S. Gupta, “Application Tracking System,” Gurukul Int. Multidiscip. Res. J., Jun. 2024, doi: 10.69758/GIMRJ2406I8V12P077.

[5] D. Marlita, S. Handayani, E. P. Perwitasari, M. R. Azis, and Y. Hamonangan, “Socialization Applicant Tracking System (ATS) and ATS Curriculum Vitae for ITL Trisakti and General Students,” Asian J. Community Serv., vol. 3, no. 2, pp. 287–294, Feb. 2024, doi: 10.55927/AJCS.V3I2.8080.

[6] N. Mehrabi, F. Morstatter, N. Saxena, K. Lerman, and A. Galstyan, “A Survey on Bias and Fairness in Machine Learning,” ACM Comput. Surv., vol. 54, no. 6, Jul. 2021, doi: 10.1145/3457607.

[7] O. Francisca and I. Abdullateef, “Applicant Tracking System for Nigeria Federal Road Safety Corps,” Br. J. Appl. Sci. Technol., vol. 6, no. 3, pp. 202–215, 2015, doi: 10.9734/bjast/2015/12910.

[8] A. H. Al-Qassem, K. Agha, M. Vij, H. Elrehail, and R. Agarwal, “Leading Talent Management: Empirical investigation on Applicant Tracking System (ATS) on e-Recruitment Performance,” 2nd Int. Conf. Bus. Anal. Technol. Secur. ICBATS 2023, 2023, doi: 10.1109/ICBATS57792.2023.10111172.

[9] S. Laumer, C. Maier, and A. Eckhardt, “The impact of business process management and applicant tracking systems on recruiting process performance: an empirical study,” J. Bus. Econ., vol. 85, no. 4, pp. 421–453, 2015, doi: 10.1007/s11573-014-0758-9.

[10] J. Devlin, M. W. Chang, K. Lee, and K. Toutanova, “BERT: Pre-training of Deep Bidirectional Transformers for Language Understanding,” NAACL HLT 2019 - 2019 Conf. North Am. Chapter Assoc. Comput. Linguist. Hum. Lang. Technol. - Proc. Conf., vol. 1, pp. 4171–4186, Oct. 2018, Accessed: Feb. 13, 2025. [Online]. Available: https://arxiv.org/abs/1810.04805v2

[11] K. Holstein, J. W. Vaughan, H. Daumé, M. Dudík, and H. Wallach, “Improving fairness in machine learning systems: What do industry practitioners need?,” Conf. Hum. Factors Comput. Syst. - Proc., May 2019, doi: 10.1145/3290605.3300830/SUPPL\_FILE/PN3256.ZIP.

[12] A. Jobin, M. Ienca, and E. Vayena, “The global landscape of AI ethics guidelines,” Nat. Mach. Intell. 2019 19, vol. 1, no. 9, pp. 389–399, Sep. 2019, doi: 10.1038/s42256-019-0088-2.

1. Appendices

[This section should include supporting detail that would be too distracting to include in the main body of the document.]