**Technical Specification Document for IRIS HR AI Assistant**

**Introduction**

IRIS HR AI Assistant is an intelligent AI-powered platform dedicated to empowering HR professionals and organizations with advanced technology to streamline their processes and drive data-driven decision-making. It seeks to simplify HR tasks, automate administrative processes, and enable HR teams to focus on strategic initiatives. This document presents the technical specifications required to realize this vision.

**Core Components**

**1. AI Engine**

Our platform uses the OpenAI Davinci model, an AI language model that utilizes machine learning for generating human-like text. The AI engine will serve as the core component for CV checking, form checking, and ranking applicants.

Key Features

1. **CV Analysis**: The AI engine will interpret CVs, identify critical skills, qualifications, and experience and compare them against job requirements.
2. **Form Checking**: This involves automatic form validation, including candidate information and answers to pre-screening questions.
3. **Candidate Ranking**: Based on the analysis of the CVs and form responses, the AI engine will rank each applicant.

**2. User Interface**

The user interface allows HR professionals to interact with the AI engine effectively. This includes a dashboard for monitoring and managing recruitment processes, a database for job postings and candidate information, and an intuitive way to create and edit job requirements.

Key Features

1. **Job Posting Management**: HR professionals can create, edit, and manage job postings.
2. **Candidate Information Management**: A database that collects and organizes applicant information, including their CVs and form responses.
3. **Dashboard**: A visual representation of the recruitment process, including candidate rankings, upcoming interviews, etc.

**3. Integrations**

The platform will allow integrations with various HR systems and tools to streamline processes and offer a unified HR management experience. This could include existing HRIS, job boards, and communication tools.

**Technical Requirements**

**1. Software**

1. **Python**: For implementing the AI engine using OpenAI's GPT-3 model. Python libraries like PyTorch or TensorFlow may be used for additional machine learning tasks.
2. **Web Framework**: Django for backend development.( but for now it is Flask)
3. **Frontend Framework**: React for frontend development.
4. **Database Management**: PostgreSQL for data storage and management.

**2. Hardware**

Depends on the deployment strategy, but most probably it will be Microsoft Azure.

**3. APIs**

1. **OpenAI GPT-3.5 API**: To leverage the power of GPT-3.5 for AI functionalities.
2. **Third-Party APIs**: To integrate with existing HRIS, job boards, and communication tools.

**Security Measures**

To ensure data privacy and meet regulatory requirements, our platform will implement:

1. **End-to-end encryption** to secure data in transit and at rest.
2. **Access controls** to restrict access based on user roles.
3. **Regular audits and compliance checks** to ensure adherence to privacy regulations.

**Scalability**

The application will be designed to handle increasing amounts of work and to be enlarged to accommodate growth. We will follow best practices for ensuring scalability, such as load balancing, data partitioning, and microservices architecture.

**Conclusion**

This technical specification document serves as the guideline for the development of the IRIS HR AI Assistant. It aims to provide clear guidance on the technical requirements, components, and features needed to bring this vision to life. All development, testing, and deployment activities should align with these specifications.