**R&D Tax AI Agent**

**1. Introduction**

1.1 **Purpose**

* The purpose of this document is to define the requirements for the AI Agent for R&D Tax, which will assist in identifying eligible R&D activities, calculating tax credits, and generating reports.

1.2 **Document Conventions**

* This document follows the IEEE SRS template format.

1.3 **Intended Audience and Reading Suggestions**

* Intended for R&D consultants, project managers, developers, data scientists, and stakeholders involved in the development and deployment of the AI agent.

1.4 **Product Scope**

* The AI Agent for R&D Tax will automate the identification of eligible R&D activities, calculate tax credits, and generate detailed reports. It will also place collected information into project descriptions and answer user questions.

1.5 **References**

* Relevant tax regulations and guidelines.
* IEEE Std 830-1998 for Software Requirements Specifications.

**2. Overall Description**

2.1 **Product Perspective**

* The AI agent will be a standalone application integrated with a web-based user interface. It will leverage LLMs to process data and provide insights.

2.2 **Product Functions**

* Data collection and preprocessing.
* Generation of reports.
* Placement of information into project descriptions.
* Answering user questions.

2.3 **User Classes and Characteristics**

* **Tax Professionals**: Users with expertise in tax regulations who will use the AI agent to streamline their work.
* **Business Owners**: Users seeking to understand and claim R&D tax credits for their businesses.

2.4 **Operating Environment**

* The AI agent will operate in a web-based environment, accessible via standard web browsers.

2.5 **Design and Implementation Constraints**

* Compliance with data privacy regulations.
* Ensuring high accuracy and reliability of the AI models.

2.6 **User Documentation**

* User manuals and online help guides will be provided.

2.7 **Assumptions and Dependencies**

* Availability of relevant and high-quality data for training the AI models.
* Access to cloud services for deployment.

**3. External Interface Requirements**

3.1 **User Interfaces**

* A web-based interface for data input, result visualization, and interaction with the AI agent.

3.2 **Hardware Interfaces**

* Standard web servers and cloud infrastructure.

3.3 **Software Interfaces**

* Flask a lightweight, flexible, and easy-to-learn Python microframework for building web applications.

**4. Non-Functional Requirements**

4.1 **Performance**

* The system shall process data and generate predictions within a reasonable time frame.

4.2 **Scalability**

* The system shall handle increasing amounts of data and users.

4.3 **Reliability**

* The system shall be reliable and available with minimal downtime.

4.4 **Usability**

* The user interface shall be intuitive and easy to use.

4.5 **Maintainability**

* The system shall be easy to maintain and update.

**5. Other Requirements**

* **Security**: The system shall ensure data privacy and comply with relevant regulations.
* **Compliance**: The system shall comply with tax regulations and guidelines.

**6. Technology Choice**

* **AI Model**: The AI agent will be powered by OLAMA’s gemma3 due to its strengths in factual accuracy, logical deduction, and multi-step reasoning, which are crucial for processing tax-related information accurately. OLAMA is also an open-source AI model, which is crucial for security related purposes.