**TECHNICAL REPORT FOR THE VisaCompanion EB-1A RFE Risk Analyzer**

*Technical Report | July 30, 2025*

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* **Title**: VisaCompanion EB-1A RFE Risk Analyzer
* **Subtitle**: Technical Report
* **Date**: July 30, 2025
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**Section 1: Problem Framing & Approach**

* **Objective**:

Develop an AI tool to predict EB-1A RFE triggers by analyzing petition documents against USCIS criteria.

* **Solution**:
  + Hybrid rule-based/NLP system with:
    - **spaCy**: Detects vague language (e.g., "world-class").
    - **PyMuPDF**: Extracts text from PDFs.
    - **python-docx**: Generates legal-style memos.
  + Implements **10 EB-1A criteria checks** (USCIS Policy Manual 6.2.1-6.2.8).

**Section 2: Architecture & Tool Design**

Diagram



Code

graph LR

A[Input PDF/DOCX] --> B(Parser)

B --> C[Analyzer]

C --> D[Report Generator]

D --> E[Output DOCX]

* **Key Components**:

| **Component** | **Functionality** |
| --- | --- |
| document\_parser.py | Extracts text from PDFs/DOCX files. |
| analyzer.py | Flags risks per EB-1A criteria. |
| report\_generator.py | Produces USCIS-style memo with fixes. |

**Section 3: Edge Cases & Limitations**

* **Table Format**:

| **Limitation** | **Mitigation Plan** |
| --- | --- |
| Scanned PDFs | Future OCR integration. |
| Non-English text | Add language detection (e.g., langdetect). |

**Section 4: Future Extensions**

* + **USCIS Precedent Checker**: Query AAO decisions for similar cases.
  + **Benchmarking**: Compare petitions against approved cases.
  + **Adjudicator Simulator**: Use GPT-4 to simulate USCIS feedback.