06 LIMITATIONS, FAILURE MODES, AND MITIGATIONS

Known Current Constraints

Camera anomaly detection quality varies by browser support, lighting, webcam quality, and frame consistency. This creates non-determinism for multi-face detection.

Resume parsing is anchor-based and can miss unconventional formatting styles or heavily graphical resumes.

AI recommendations depend on model availability and prompt quality; fallback is deterministic but less nuanced.

PoC stack uses SQLite and local dev assumptions that are not sufficient for enterprise concurrency and governance requirements.

Impact Analysis

Camera variability can under-report certain integrity anomalies, so hard dependencies on camera-only signals should be avoided in high-stakes decisions.

Parser misses can downgrade baseline confidence and consistency logic if crucial fields are absent.

Model outages can reduce recommendation richness but should not block core workflow because fallback remains active.

Mitigations Already Implemented

Deterministic integrity signals (tab-switch, paste) are integrated and more reliable than camera-only checks.

Fallback recommendation logic preserves system operability when model calls fail.

Baseline checklist exposes unknown/missing conditions explicitly, preventing silent failures.

Resume parsing uses raw text fallback in skill matching path to reduce misses from strict section extraction.

Mitigation Plan Post Demo

Improve parser robustness with section scoring and optional OCR fallback for non-text PDFs.

Add calibration and confidence indicators for camera subsystem with clearer user guidance.

Introduce model-response validation checks and stricter risk-line enforcement rules.

Adopt production-grade infra controls and formal test suites for recommendation determinism.