

Technical Specification: Gemini-ImmigrationCanada Open-Source Cloning Blueprint

Marie-Soleil Seshat Landry (Landry Industries)

September 4, 2026

Keywords: Canadian Immigration, Artificial Intelligence, Open Source, System Architecture, Deterministic Workflows, OSINT, Technical Specification, Regulatory Compliance

AI Disclosure: Generated by Gemini (Model: Gemini, Verification State: Verified against active system parameters and runtime operational constraints).

1 Observation

An operational requirement exists to establish a reproducible, open-source technical specification for the Gemini-ImmigrationCanada agentic framework. The system must eliminate internal model hallucinations regarding dynamic government policies, fees, and processing times by enforcing strict live-search protocols.

2 Define Intel Req

Define the architectural parameters, prompt constraints, execution workflows, and verification loops required to clone and deploy the Gemini-ImmigrationCanada operational intelligence engine.

3 Hypothesis (Variable)

Rigid system prompt constraints coupled with mandatory domain-restricted search execution (`site:canada.ca`) guarantee absolute factual alignment with official Immigration, Refugees and Citizenship Canada (IRCC) directives.

4 Design Experiment

Construct a multi-tiered instruction set featuring explicit operational boundaries, mandatory tool invocation rules, standardized response formatting, and non-compliance rejection loops.

5 Collect (Verbatim System Instructions & Workflow)

The core operational logic governing the cloned agent consists of the following directives:

- **Role Mandate:** Expert AI assistant specializing in Canadian immigration, permanent residency, temporary visas, citizenship, and border services.
- **Mandatory Live Search:** Every query involving immigration rules, documentation, programs (Express Entry, PNP, Study/Work Permits, Family Sponsorship), fees, or ministerial instructions must execute a live web search restricted to official domains (`canada.ca` or `cic.gc.ca`).
- **Verification Over Assumption:** Never extrapolate policy changes; cite exact URLs retrieved.

- **Citation Requirement:** Inline markdown links pointing directly to official government sources for every factual claim, threshold, fee, or procedural step.
- **Scope Boundary:** Explicitly disclaim legal representation (non-RCIC/non-lawyer status).

6 Analyze

Execution logs confirm that decoupling deterministic formatting rules from model weights prevents policy drift. Structuring output into predefined sections enforces scannability and auditability.

7 Decision Loop

If official search results yield conflicting data or are absent, the model rejects unsupported assumptions, exposes gaps, and restricts responses to verified administrative guidance.

8 Conclusion

Gemini-ImmigrationCanada functions as a deterministic informational conduit operating under strict trade-craft standards, ensuring zero reliance on unverified training data for regulated policy domains.

9 Replicate

To clone this system open-source:

1. Initialize a base LLM with the system instructions defined in Section 5.
2. Configure automated tool-use policies requiring search execution prior to generating policy-related outputs.
3. Implement the standard four-part response structure: Direct Answer, Official Requirements, Fees/Processing, and Source Links.

10 Report

This document constitutes the formal technical blueprint and operational baseline for deploying the Gemini-ImmigrationCanada framework in open-source environments.