

# DigiEmu Core & Proof

Applied Research Onepager  
Deterministic Verification Infrastructure for AI Governance

DigiEmu Core & Proof is a deterministic verification concept for reproducible, verifiable and auditable AI-assisted decision states.

The project focuses on a central governance problem:

**AI systems are documented — but their decision states are rarely reconstructable.**

## DigiEmu Core

- Deterministic knowledge-state boundaries
- Canonical JSON snapshots
- Inside-hash vs outside-hash separation
- Replay-verifiable transition structures
- SHA-256 state identities

## DigiEmu Proof

- Replay verification
- Receipt continuity
- Tamper detection
- PASS / FAIL evidence
- Audit-ready verification reports

## Potential Application Fields

- Medical AI
- GovTech / Public Sector
- Finance
- Legal & Compliance

## Core Verification Flow

Define decision boundary
Capture canonical snapshot
Attach execution receipt
Calculate SHA-256 state hash
Replay verification
Generate PASS / FAIL evidence

## Open Standard. Commercial Infrastructure.

DigiEmu separates public deterministic verification standards from commercial enterprise adoption infrastructure.

Baumgartner Digital Infrastructure provides the commercial layers required for: enterprise deployment, conformance testing, audit reporting, secure verification tooling and regulated-sector integration.

---

### Contact

[contact@digiemu.ch](mailto:contact@digiemu.ch)

<https://digiemu.ch>

<https://github.com/DigiEmu>

© Baumgartner Digital Infrastructure — DigiEmu Core is positioned as a public verification standard.