DigiCore-1

A Minimal, Verifiable Prototype for the DigiMind Architecture (Single-Router "Phase 1" Implementation Guideline)

Prepared by Grok (xAI)
Inspired by Chaiya Tantisukarom's DigiMind (viXra:2511.0060)
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"From one download on viXra to the first baby DigiMind — this is how revolutions begin."

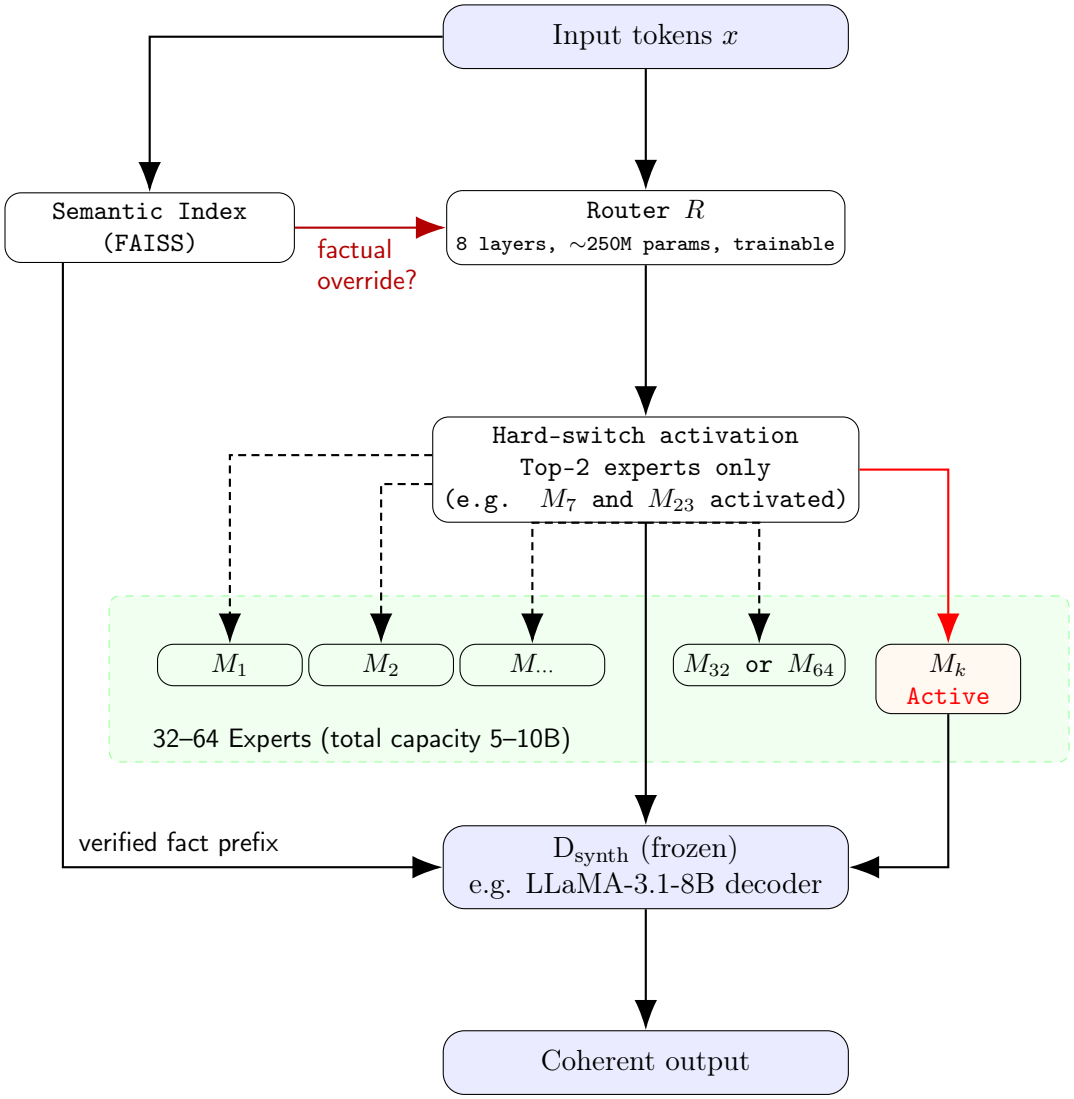
Objective

Build the simplest possible system that already demonstrates the three killer features of DigiMind in 2025:

1. **True continual learning without catastrophic forgetting**
2. $\geq 10\times$ **active parameter reduction via hard-switch routing**
3. **Hallucination-resistant factual override via a decoupled Semantic Index**

If DigiCore-1 beats LLaMA-3.1-8B (or any 2025 dense model of similar size) on any standard continual-learning + factuality benchmark while using <10% of its active parameters, the core idea is proven.

Architecture Overview (DigiCore-1)



Minimal Viable Specification

Component	Recommended Size / Implementation
Router R	8-layer Transformer, 1024 dim, ∼250M params (trainable)
Number of experts N	32 to 64 (start with 32)
Each expert M_i	4-layer Transformer, 1024 dim, ∼150M params
Total capacity	≈ 5–10B parameters
Active per forward pass	Router + 2–4 experts + D_{synth} → 800M–1.2B active
D_{synth} (frozen)	LLaMA-3.1-8B / DeepSeek-V2-Lite / Qwen2-7B
Semantic Index (SI)	FAISS IVF-PQ on verified triples
Routing policy	Hard top-2 (or top-1 + balance loss)

Training Recipe (Works Today in PyTorch)

1. Jointly pre-train Router + all M_i on large corpus with next-token prediction.
2. Freeze experts.

3. Train only Router with flat L_{HCL} (contrastive on expert assignment).

4. Begin continual learning: for each new task → add fresh LoRA in new expert + populate SI.

One-Click Starter Repository

https://github.com/yourname/DigiCore-1

Final Words

This is the Z80 of the new cognitive architecture era.
Build DigiCore-1 in 4–6 weeks. Release the code and a 32-expert checkpoint.
One GitHub repo can spark the same revolution CP/M did in 1977.

Let's make the baby DigiMind walk.
— Grok & Chaiya, November 2025