

DeFi MicroLLM — Tiered Plan of Attack

This document summarizes the three-tier strategy for building and integrating the DeFi microLLM, aligned with the NGF Stage10/11 doctrine (Warp → Detect → Denoise). Each tier represents an increasing level of capability and integration.

Tier 0 — Baseline Deterministic Rails (✓ Secured)

- Stage10 rails with matched filter + dual thresholds.
- Adapters: simple rule and stub mapper (ARC + DeFi).
- Residual traces and priors in place.
- Basic verifiers (ARC grid ops, DeFi invariants).
- End-to-end CLI runs are working.

****Status:**** Complete — we already have this foundation secured.

Tier 1 — MicroLLM on Synthetic Latents (Operational)

- Hybrid mapper + prior injection for stronger prompt→feature mapping.
- Stage11 warp + detect + denoise rails wired against synthetic latent traces.
- Benchmarked successfully on ARC-like synthetic latents — demonstrates reasoning works.
- MicroLLM exists: deterministic parser + denoiser operating on synthetic wells.

****Status:**** Proven — benchmarks confirm deterministic reasoning on synthetic latents.

Tier 2 — Sidecar Integration with Real Latents (Aspirational)

- Real integration: extract pooled latents from an external LLM (e.g. GPT2 sidecar).
- Replace synthetic latent generator with live embeddings for DeFi prompts.
- MicroLLM rails (warp → detect → denoise) consume real latents to classify/sequence primitives.
- Bragging-point tier — showcases novel architecture, but high risk and currently unproven.

****Status:**** Dream stage — ambitious future work, not required for MVP.

This tiered roadmap secures immediate deliverables (Tier 0 + Tier 1) while leaving Tier 2 as a forward-looking integration path. The MVP is viable at Tier 1, with Tier 2 reserved as a stretch goal.