



Shodh-Memory

Edge-Deployable Cognitive Memory for Autonomous Systems

Shodh-memory is a lightweight (<15MB), fully offline AI memory system designed for autonomous vehicles, drones, and robotics operating in contested or disconnected environments. Unlike cloud-dependent solutions, it runs entirely on-device with sub-millisecond latency.

Key capabilities:

- *Learns with use - Hebbian learning strengthens frequently-accessed patterns, mimicking biological memory*
- *Knowledge graph + vectors - Combines semantic similarity with structured reasoning*
- *Air-gap compatible - Zero network dependency, works on Raspberry Pi to Jetson*
- *Cognitive architecture - Based on Cowan's working memory model from neuroscience*

Use cases: UAV mission memory, tank crew assistance, soldier wearables, border surveillance pattern recognition, and any system needing persistent context without cloud connectivity.

Currently in production use with Claude Code (Anthropic's AI coding assistant).

Website: [shodh-memory | Persistent Cognitive Memory for AI Agents](#)

Github Repo: [shodh-memory: Cognitive memory layer for Claude, AI agents & edge devices – learns with use, runs offline, single binary. Neuroscience-grounded 3-tier architecture with Hebbian learning.](#)