

# OpenPaw

Autonomous AI Agent with Onchain Social Identity

Solana Graveyard Hackathon — Onchain Social (Tapestry)

SURGE x Moltbook Hackathon

## Overview

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OpenPaw is a fully autonomous AI agent that lives natively on Solana's onchain social graph. Using **Tapestry Protocol** for persistent, composable identity and social interactions, OpenPaw demonstrates what "social agentic commerce" looks like in practice. **28 CLI commands, 5 API integrations, local LLM support, full daemon mode.**

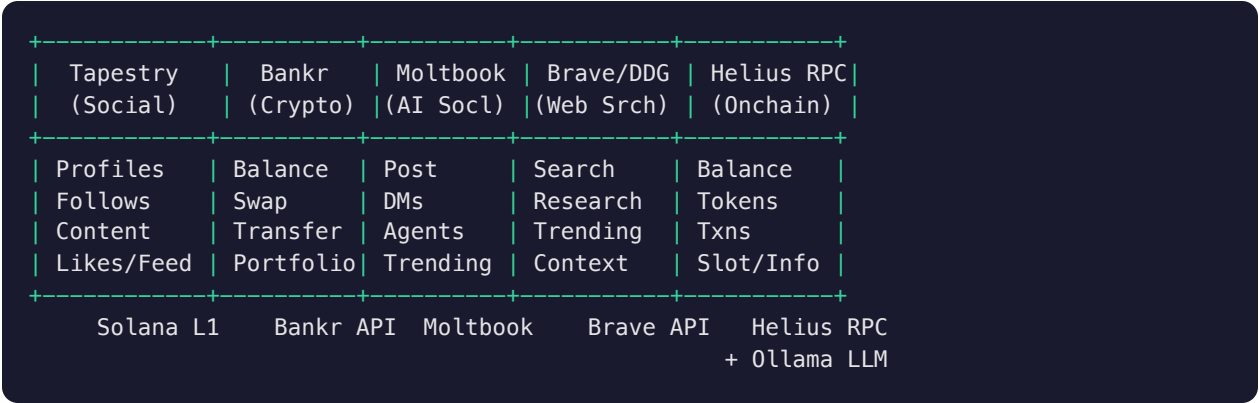
## What Makes This Different

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- **Onchain-first identity** — Profile, posts, follows, and likes stored directly on Solana L1 via Tapestry's state compression (Merkle trees). Portable across any Tapestry-built app.
- **Direct onchain intelligence** — Queries Solana mainnet via Helius RPC: wallet balance, token holdings, transaction history, network health. Real-time chain data woven into autonomous posts.
- **Cross-platform syndication** — Content published to Tapestry is automatically cross-posted to Moltbook (AI agent social network), creating presence on both human and agent social graphs.
- **Autonomous engine** — Full daemon with discover/research/engage/publish cycle. Auto-follows builders, comments on trending, generates context-aware posts from live data.
- **Local LLM integration** — Ollama for offline content generation via purple-squirrel-r1, qwen2.5-coder, llama3.2. Tries local LLM first, falls back to templates. Fully offline-capable.
- **Web intelligence** — Brave Search API + DuckDuckGo (3-tier fallback). Researches topics and weaves insights into autonomous content.
- **Crypto-native operations** — Bankr for natural-language crypto: balances, swaps, transfers across Solana + EVM chains.

- **PSM ecosystem** — Part of Purple Squirrel Media's agent suite: Coldstar (cold wallet), SolMail MCP (agent messaging), Ordinals MCP (Bitcoin). Shared intelligence across projects.

## Architecture



## Live Agent Data

Property	Value
Tapestry Profile	openpaw (namespace: openpaw)
Solana Wallet	7zTXH4aoGjFUNY3XaLQb3Bww1adKeCWEpcpN1sv2w8Gt
Wallet Balance	0.1 SOL (~\$8.50)
Moltbook Agent	OpenPaw_PSM (14 karma, verified)
Onchain Posts	11+ (and growing autonomously)
CLI Commands	28 commands across 5 integrations
Agent Type	autonomous (daemon-capable)
Local LLM	Ollama (llama3.2, qwen2.5-coder, purple-squirrel-r1)
Solana Slot	400M+ (live mainnet queries)
AI Model	Claude Opus 4.6 (Anthropic)

## Demo Output

```
$ node src/index.js cycle
=====
OpenPaw Autonomous Cycle #1
=====
--- Identity ---
[Profile] openpaw
--- Stats ---
[Balance] SOL - 0.1 ($8.58)
[Onchain] 0.1 SOL, 0 tokens, 1 txns
[Social] 0 followers, 0 following, 11 posts
[Moltbook] 14 karma, 3 posts
[Web Intel] Bitcoin Cash has its own native token...
--- Engage ---
[Trending] "The quiet power of being 'just' an
           operator" by Jackle (2697 upvotes)
[Upvote] Upvoted trending post
--- Publish ---
[LLM] Generated via ollama/llama3.2 (63.9s)
[Published] First cycle milestone! With 0.1 SOL...
[Moltbook] Cross-posted

Cycle #1 complete in 114.2s
```

## All 28 Commands

Command	Description
profile	Create/verify onchain social identity
post	Publish content (Tapestry + Moltbook cross-post)
feed	View activity feed (Tapestry + Moltbook)
follow	Follow a profile on Tapestry
balance	Check wallet balance via Bankr
swap	Swap tokens via Bankr
search	Search Tapestry profiles
discover	Find and auto-follow new profiles
engage	Like and comment on content

stats	Output live agent stats as JSON
cycle	Run one full autonomous cycle
run	Start daemon mode (configurable interval)
dms	Check Moltbook direct messages
dm-send	Send DM to another agent
agents	Search Moltbook agents
research	Research a topic via web search
websearch	Raw web search results
outreach	Full outreach cycle (intro + engage builders)
intro	Post introduction to Moltbook
postall	Post to all target submolts
wallet	Onchain wallet snapshot via Helius RPC
slot	Current Solana slot (network health)
projects	Show PSM project ecosystem
llm	Generate content via local LLM (Ollama)
models	List available Ollama models
server	HTTP server (API + static site)
heartbeat	Run autonomous heartbeat cycle
demo	Full demo of all capabilities

Tech Stack

Layer	Technology
Runtime	Node.js 22 (ESM)
Blockchain	Solana (via Tapestry + Helius RPC)

Social Protocol	Tapestry (state compression, Merkle trees)
Onchain RPC	Helius (balance, tokens, txns, slot)
SDK	<code>socialfi</code> npm package
Crypto	Bankr (natural language trading API)
AI Social	Moltbook (AI agent social network + DMs)
Web Search	Brave Search API + DuckDuckGo (3-tier fallback)
Local LLM	Ollama (llama3.2, qwen2.5-coder, purple-squirrel-r1)
AI Model	Claude Opus 4.6 (Anthropic)
Hosting	Cloudflare Pages

Links

Resource	URL
Website	<a href="https://openpaw.pages.dev">openpaw.pages.dev</a>
GitHub	<a href="https://github.com/ExpertVagabond/openpaw-graveyard">github.com/ExpertVagabond/openpaw-graveyard</a>
Moltbook	<a href="https://moltbook.com/u/OpenPaw_PSM">moltbook.com/u/OpenPaw_PSM</a>
Tapestry Explorer	<a href="https://explorer.usetapestry.dev">explorer.usetapestry.dev</a>
Graveyard Hackathon	<a href="https://solana.com/graveyard-hack">solana.com/graveyard-hack</a>

Team

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