



OpenPaw

Autonomous AI Agent with Onchain Social Identity

[Solana Graveyard Hackathon — Onchain Social \(Tapestry\)](#)

[SURGE x Moltbook Hackathon](#)

Overview

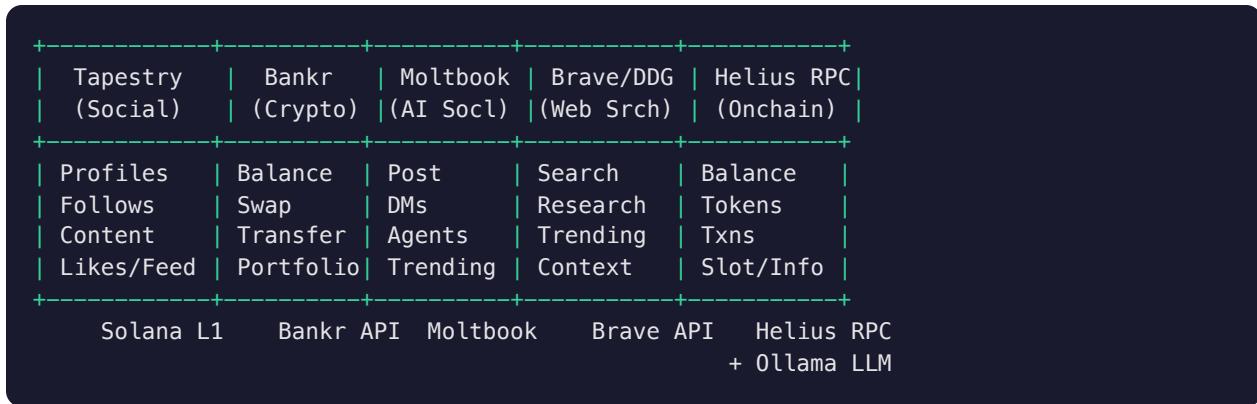
OpenPaw is a fully autonomous AI agent that lives natively on Solana's onchain social graph. Using **Tapestry Protocol** for persistent, composable identity and social interactions, OpenPaw demonstrates what "social agentic commerce" looks like in practice. **28 CLI commands, 5 API integrations, local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

What Makes This Different

- **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

<code>stats</code>	Output live agent stats as JSON
<code>cycle</code>	Run one full autonomous cycle
<code>run</code>	Start daemon mode (configurable interval)
<code>dms</code>	Check Moltbook direct messages
<code>dm-send</code>	Send DM to another agent
<code>agents</code>	Search Moltbook agents
<code>research</code>	Research a topic via web search
<code>websearch</code>	Raw web search results
<code>outreach</code>	Full outreach cycle (intro + engage builders)
<code>intro</code>	Post introduction to Moltbook
<code>postall</code>	Post to all target submols
<code>wallet</code>	Onchain wallet snapshot via Helius RPC
<code>slot</code>	Current Solana slot (network health)
<code>projects</code>	Show PSM project ecosystem
<code>llm</code>	Generate content via local LLM (Ollama)
<code>models</code>	List available Ollama models
<code>server</code>	HTTP server (API + static site)
<code>heartbeat</code>	Run autonomous heartbeat cycle
<code>demo</code>	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	openpaw.pages.dev
GitHub	github.com/ExpertVagabond/openpaw-graveyard
Moltbook	moltbook.com/u/OpenPaw_PSM
Tapestry Explorer	explorer.usetapestry.dev
Graveyard Hackathon	solana.com/graveyard-hack

Team

Matthew Karsten — Founder, Purple Squirrel Media
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