

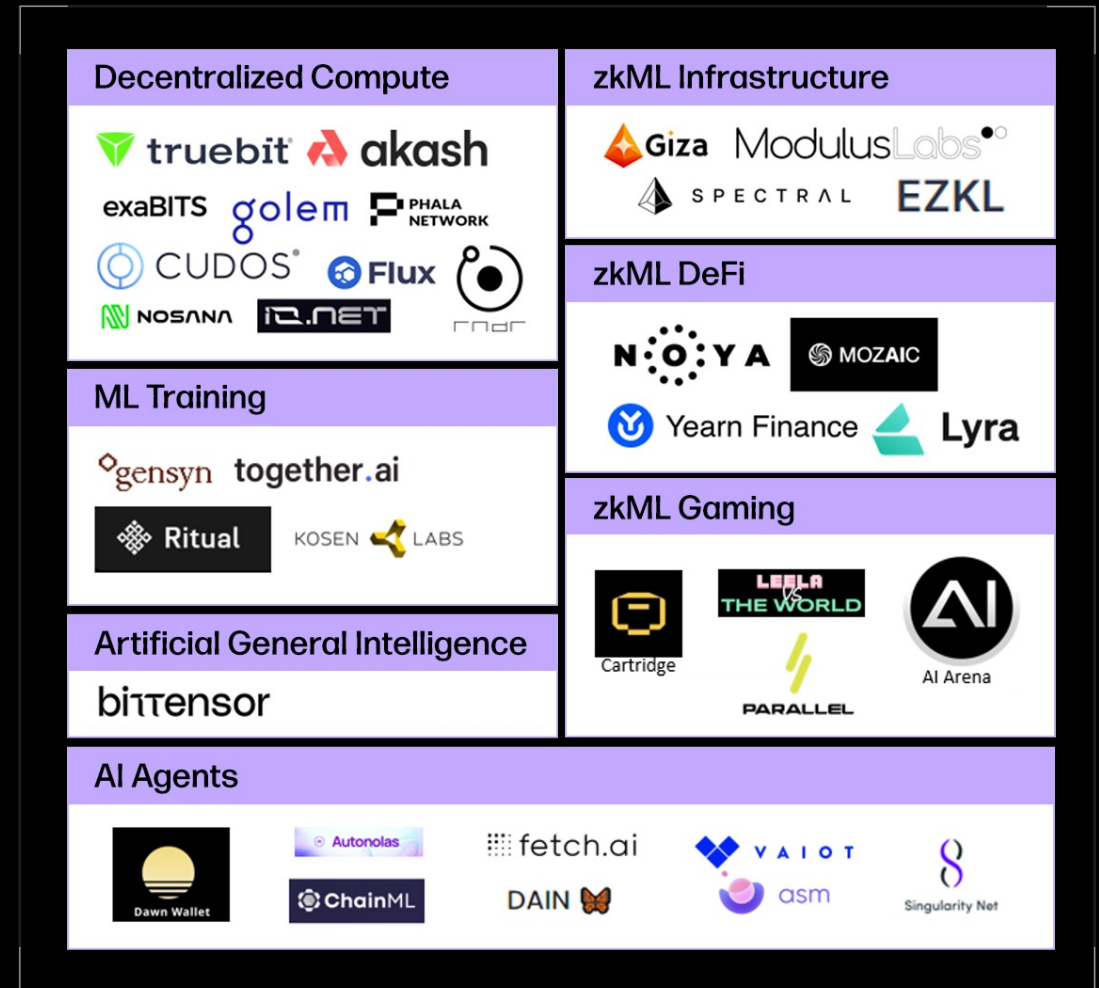
# Crypto x AI Picks Up Steam

Agents, zkML, and DePIN Dominate Integrations



# Real AI and Crypto Integrations Occurring Today

- **Crypto provides AI with a permissionless, trustless, and composable financial layer.** This unlocks use cases such as making hardware more accessible through decentralized compute systems, building AI agents that can automate complex tasks requiring the exchange of value, and developing identity and provenance solutions to combat Sybil attacks and deep fakes.
- **AI brings to crypto many of the same benefits we see in Web 2.** This includes enhanced user/developer experience thanks to large-language model chatbots as well as the potential to significantly improve smart contract functionality and automation.
- **Crypto and AI integration in the near term will be dominated by AI applications that enhance developer efficiency, smart contract auditability and security, and user accessibility/experience.** These integrations are not specific to crypto, but crypto stands to benefit immensely from them given notorious issues with UX and developer tooling.
- **Zero Knowledge Machine Learning (zkML) and AI Agents are still early in their development.** Development in both verticals will remain focused on building out the infrastructure and tooling needed for teams to build products while teams continue to roll out proof of concept applications in defi, gaming, and identity. Talent acquisition remains a major obstacle due to a lack of developers with cross-domain experience in crypto and AI.





# DePIN Finds PMF with Decentralized Compute?

DePIN experienced significant growth over the course of 2023 as both established and new projects gained adoption. AI use cases, especially, led to a dramatic increase in decentralized compute networks that connect buyers and sellers to rent GPUs and other hardware needed in machine learning training and inferencing. This trend will accelerate in the year ahead as AI x Crypto integrations grow and AI crypto solutions demonstrate practical advantages over their centralized alternatives. Specifically, decentralized compute providers will benefit from:

- **GPU Supply:** Wait times for the best-in-class hardware can be at least six months, and in many cases longer. Decentralized compute providers address both the demand and supply side, providing a permissionless, two-sided marketplace, for leasing and renting compute.
- **Regulation/Censorship:** Recent regulatory and geopolitical developments, including the AI Executive Order released by the White House, ongoing U.S.-China tensions, and the OpenAI controversy highlight the potential for regulation that limits access to AI technologies. This will drive demand for permissionless networks that offer anyone anywhere access to hardware needed for AI training and inferences.
- **Product Maturity/Hardware Requirements:** As AI models mature, hardware requirements will also drop increasing both supply and demand for consumer-grade hardware prevalent in households. Demand today is mostly driven by the highest-end hardware that is difficult to obtain at scale.
- **Data/Privacy:** As AI becomes further integrated into our lives, users will place a premium on being able to run models on applications that have privacy baked into them. Decentralized compute solutions can be integrated with external data and privacy solutions that provide users with autonomy over their data.

Source: Cloudmos.io

