

Architect Insights

The ABCs of Al, Blockchain, and Crypto

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Executive Summary

AI + Blockchain + Crypto (ABC) is Transformative Blockchain will be essential in establishing a

trustworthy and efficient AI ecosystem, while Crypto adds decentralized payment methods



Trust in Al is Enhanced by Decentralization Decentralization enhances overall system trust regarding transparency, data integrity, and arguably censorship, and potential bias from centralized control



Significantly Improves AI Data Integrity Blockchain technology helps solve many AI data challenges regarding content origin, accuracy, and integrity



Platform to Support Innovation Across Sectors The combined technology stack enables significant improvement of core functionality and automation. Al Agents are a key driving force for innovation.



Improved Efficiency and Security Al provides intelligence to optimize blockchain capabilities and enhance overall security



Impact Translates to a Huge Market Segment Future Market Insights projects the Al/Blockchain market value at \$3.5B by 2033



2025 Poised for Significant Growth

Funding for Al/Blockchain companies represented 8.5% of all crypto deals and 10% of all crypto related invested capital in 2024, and expanding



Challenges Remain

It will take some time to fully realize benefits, but the basis for immediate value exists today

Why is ABC so important?

A combination of technologies to build a more secure, transparent, and efficient digital economy



Benefits of ABC: Integrity of AI Source Data

CHARACTERISTIC

Verifiable & Authenticated Data

IMPACT

Blockchain's immutable ledger tracks the origin, creation and modifications of Al datasets. This decentralized, verifiable record ensures the authenticity of data used reducing the risk of fraudulent, manipulated, and/or biased information.

Data Audit

Al auditing of blockchain activity continuously monitors data stored on the blockchain to ensure its accuracy and integrity.

Optimize Data Utilization

Al structures data to be compatible with smart contracts/applications, provides advanced data analysis, and ensures the integrity of data resources, improving the security, efficiency, and accuracy of execution.

Benefits of ABC: Security

CHARACTERISTIC

IMPACT

Fraud Detection	Authenticate identity and validate transactions to prevent fraudulent data and transactions
Real-Time Threat Management	Leverage behavioral analysis to detect fraudulent activity and provide automated mitigation. Decentralization mitigates single point of failure, improving system robustness
Adaptive Security	Learn from past issues, simulate attacks, determine vulnerabilities and enact proactive measures
Protocol Analysis	Al's advanced analysis together with blockchain's ability to create robust identity verification improves efficiency and user control. Facilitates the creation of global IDs
Privacy Preserving Computation	Zero Knowledge Proof (ZKPs) process sensitive data without exposing details, and oracles maintain data confidentiality while enabling smart contract execution

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Benefits of ABC: Smart Contracts



Benefits of ABC: Infrastructure



Benefits of ABC: Al Agents



Benefits of ABC: Crypto Digital Economy



How ABC Affects Subsectors

Examples of ABC impacts on crypto-related subsectors Architect Partners tracks



Brokers & Exchanges

- · Real-time data analysis
- Auto trade execution
- Improves liquidity
 management
- Fraud and risk
 management
- Automated valuation and pricing models



Blockchains & Protocols

- Improves consensus mechanisms
- Enables greater scalability
- Enhances security and detect malicious activity
- Optimizes operations
- Optimizes cross chain transactions



Investing & Trading Infrastructure

- Efficient algorithmic trading
- Improves automated market makers
- Portfolio management
- Risk management
- Improves prediction markets
- Smart order routing



Mining & Staking

- Streamline operations
- Optimize mining rewards
- Drive efficient energy utilization
- Staking optimization
- Dynamic allocation to maximize staking yields

How ABC Affects Subsectors

Examples of ABC impacts on crypto-related subsectors Architect Partners tracks



Payments Infrastructure

- Enhances security and fraud prevention
- · Auditability
- Improves efficiency
- Enhances user experience
- Mitigates payment related risks



- Improves efficiency
- Optimizes performance,
- security and data validation
- System operations modeling and predictive analysis
- Facilitates cross chain compatibility
- Enables collaborative
 decentralized development



- Tailored personalized experiences
- More secure personal data
 and ID management
- Protects consumers from fraudulent products & transactions
- Enhances content reliability



- Enhances transparency and trust
- Optimizes supply chain management
- Improves enterprise data management
- Improves data-driven decision making
- More efficient financial
 management and controls

Challenges remain, inhibiting widespread adoption

Balancing Data and Privacy

Highly secure solutions such as zero-knowledge proofs or SMPC will be required to ensure highly sensitive data can be made available for usage, while the underlying data remains private

Scalability

AI + blockchain requires heavy computation. Current blockchain platforms have limited computational capabilities. AI+BC will create bottlenecks that hinder real-time AI applications and increase costs

Technical Complexity

Integration of the two technologies face a complex environment working to strike a balance between decentralization, which enables greater security, and scalability which improves performance.

Technical and Operational Risks

Integrating AI with blockchain introduces new cybersecurity risks, data poisoning and malicious AI training. Interoperability between diverse AI and blockchain infrastructures increases operational complexity

Interoperability

Creating standardized communication and data sharing between diverse blockchain and AI infrastructure will need to be established

Regulatory Environment

Blockchain assets and transactions don't always fit neatly into existing categories, creating an uncertain legal, regulatory and compliance environment, especially across geographic regions

Coopetition

Shared, decentralized data pools that maintain data privacy is a significant opportunity, and a unique challenge for businesses. Governance, consensus and decision-making rules need to be clear, fair, and transparent

Consumer Privacy and Ethical Concerns

Shared immutable blockchain ledgers heighten risks associated with unauthorized access or inadvertent exposure of sensitive consumer data, especially when integrating AI algorithms that depend heavily on user data.

Near Term Opportunities



Total ABC Investment Increased 15% YoY While Deal Count Increased by 27%

ABC Financings have followed the flat or declining fundraising environment of blockchain / crypto companies, as opposed to the parabolic growth of general AI investments.

However, ABC funding represented 8.5% of the number of crypto related financings, and 10% of all crypto related deployed capital in 2024

ABC Total Capital Raised & Transaction Count by Quarter



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ABC Investment Distribution



Source: Architect Partners Crypto Private Financing Tracker.

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Funding is Almost Exclusively Focused on Seed and Earlier Stage Rounds



Source: Architect Partners Crypto Private Financing Tracker.

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Top ABC Capital Raises in 2024

COMPANY	TOTAL RAISED (\$M USD)	ANNOUNCED DATE	STAGE	SUBCATEGORY
Sentient	\$85.0	7/2/2024	Seed Round	Blockchains & Protocols
Zama	79.0	3/7/2024	Series A	Data & Data Analytics
TradeAlgo	69.5	10/2/2024	Series A	Data & Data Analytics
CeTi	60.0	7/23/2024	Early Stage VC	Blockchains & Protocols
Arbol	60.0	4/30/2024	Series B	Enterprise Solutions
VoloFin	50.0	11/18/2024	Early Stage VC	Enterprise Solutions
KarmaCheck	45.0	6/27/2024	Series B	Enterprise Solutions
Sahara Al	43.0	8/14/2024	Series A	Blockchains & Protocols
IO Research	30.0	3/5/2024	Series A	Enterprise Solutions
Nillion	25.0	10/30/2024	Early Stage VC	Data & Data Analytics
UPTIQ	23.6	11/11/2024	Series A	Data & Data Analytics
Hyperbolic	20.0	12/10/2024	Series A	Enterprise Solutions
Edge Matrix Chain	20.0	8/29/2024	Series A	Blockchains & Protocols
Felix	19.1	1/29/2024	Series A	Payments Infrastructure
ChainOpera	17.0	12/26/2024	Seed Round	DApp: Investing & Trading

TOP 15 TRANSACTION LIST (sorted by amount raised)

(i) Ranking does not include non-disclosed transactions.

Most Top ABC Investors Have Been Blockchain Native



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Leading Organizations are Beginning to Implement



Microsoft has partnered with Aptos Labs to integrate blockchain into Azure, focusing on security and scalability for decentralized applications. This collaboration uses AI to enhance performance and safeguard data. Azure processes over 200 million transactions daily, offering global scalability, while Aptos' blockchain technology ensures transparency and reliability, enabling businesses to innovate securely in decentralized ecosystems.



Mastercard partnered with Feedzai, a regulatory technology platform specializing in Al-driven fraud detection, to enhance security in cryptocurrency transactions. This collaboration integrates Feedzai's Al capabilities with Mastercard's CipherTrace platform, enabling real-time monitoring and prevention of fraudulent activities across over 6,000 cryptocurrency exchanges.



Casper Labs and IBM Consulting have partnered to create a blockchain-powered AI governance solution, leveraging IBM WatsonX's governance. Built on Casper's tamper-resistant blockchain, it ensures AI system transparency with features like a compliance dashboard, version control, and audit reporting. The solution will be available in beta in Q1 2024, supporting industries such as finance, healthcare, and retail. Casper's blockchain handles 10,000+ transactions per second with finality in ~1.5 seconds.



Ford's battery passport pilot with Everledger, blockchain and AI were used to track the lifecycle of EV batteries. Blockchain created an immutable ledger to record each battery's unique ID, origin, chemistry, and recycling status, ensuring transparent and tamper-proof data across the supply chain. AI analyzed data from blockchain entries and IoT sensors to monitor battery performance, predict degradation, and optimize recycling processes. Batteries were tagged with 2D data matrix codes, scanned at key points for real-time updates. Over 90% of tracked batteries were successfully monitored.

Companies Building the ABC Future

(MINIMUM \$5M INVESTED IN COMPANY)



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NEAR

Solution Category: Developer Tools & Infrastructure

Capital Raised / Valuation:

\$355M Total Raised Investors: Tiger Global Management, ParaFi Capital, Corner Capital management, Blockchange Ventures, Dragonfly, MetaWeb Ventures, Woodstock Fund, AU21 Capital, TAG Ventures, Hashed, Kosmos Ventures, SID Venture Partners, Shift Capital, Grupo HS3, Outlier Ventures, etc.

Overview:

NEAR is a layer-1 blockchain providing a secure and scalable decentralized application building platform for developers and entrepreneurs. In 2023, NEAR launched NEAR Tasks, a global gigs marketplace platform built on NEAR's blockchain where users can freely list and fulfill AI requests. NEAR Tasks leverages human intelligence in machine learning by allowing AI developers to hire human taskers for crypto compensation. NEAR's AI ambitions also include autonomous AI developers to make application building more accessible and decentralized AI ownership, facilitated through the their blockchain, to allow their web3 community to become an ecosystem for user-owned AI applications / models.

Fetch.ai

Solution Category: Agents

Capital Raised / Valuation: \$75M Total Raised

Investors: Assmbl.ai

Overview:

Fetch AI is a blockchain platform that leverages decentralized AI power solutions to optimize and automate processes . Fetch.ai is the developer of AI Agents and Engines which essentially serve as functional AI assistants with a wide array of capabilities spanning from financial analysis to increasing logistical efficiency. Fetch. ai aims to revolutionize the AI space by making it more simple and accessible. AI Agents can help fully automate tasks and serve as self-operating decision makers and problem solvers. Furthermore, Fetch AI's AI Engine parses and connects human language output to AI Agents to execute tasks. Fetch.ai's AI Agents currently mainly serve in the crypto economy, enhancing efficiency and security for individuals and firms managing millions of user data points.

🔣 fetch.ai

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bitsCrunch



Solution Category: Developer Tools & Infrastructure

Capital Raised / Valuation:

\$6.75M Total Raised

Investors: Absoluta Digital, Animoca Brands, Animoca Ventures, Artemis Capital, BasedVC, Chainlink Labs, Coinbase Ventures, Crypto.com Capital, Cypher Capital, DuckDAO, Levitate Labs, Morningstar Ventures, Red Beard Ventures, Shima Capital

Overview:

bitsCrunch operates two main businesses: a B2B API service and a B2C NFT analytics service. bitsCrunch is an AI-enhanced blockchain data platform that allow developers to build reliable applications. Using a decentralized structure, bitsCrunch eliminates intermediaries, enabling efficient building of applications. On the B2C side, bitsCrunch also operates Unleash NFTs, an industry leader in blockchain analytics and forensics, leveraging AI and ML to detect fraud in the NFT space tackling challenges such as digital art forgery and NFT wash trading.

Gensyn

Solution Category: Decentralized & Confidential Compute & Storage

Capital Raised / Valuation:

\$4.3M Total Raised

Investors: Andreessen Horowitz, Canonical Crypto, CoinFund, Daedalus Angels, Druid Ventures, Eden Block, Id4 Ventures, M31 Capital Partners, Maven 11, PEER Venture Partners, Protocol Labs, Zee Prime Capital

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Overview:

Gensyn is a blockchain based machine learning network that connects developers to excess computing power world-wide. This allows developers to train models using a decentralized network of devices, including personal computers with idle GPUs and data centers with excess capacity. Gensyn enables businesses and researchers to access cost-effective computing power by leveraging data nodes and AI to access excess computing capacity without breaching compliance. By organizing a network of machine learning-capable hardware, Gensyn is able to facilitate and share machine learning infrastructure, furthering industry growth.

SingularityNET

Solution Category: Data Collection, Exchange & Monetization

Capital Raised / Valuation:

\$25M Total Raised Investors: GDA Investments, Fundamental Labs, Alpha Transform Holdings

Overview:

SingularityNET is a decentralized platform that serves as a marketplace for AI developers and users through an automated transaction system using the native AGIX token. SingularityNET's advanced interface helps connect users with relevant AI solutions whose functions range including colorizing black and white photos, wrapping algorithms, and writing text summaries. SingularityNET also publishes new AI services and tracks top performers gaining advanced intel on developments in the AI space. Stakeholders range from smaller AI developers/ventures, investors in the fintech/AI space, firms looking for unique AI solutions, and holders of the AGIX token.



Solution Category: Data Collection, Exchange & Monetization

Capital Raised / Valuation:

\$5M Total Raised

Investors: Matterblock, Lbanks Labs, Blockchain Coinvestors, Cypher Capital, Scytale Ventures, Blockwall Management, First Principles Ventures, Kosmos Ventures, Outlier Ventures, Amino Capital.

ocean

Overview:

Ocean Protocol is a blockchain based data exchange platform that allows secure transactions in a digital data marketplace. User datasets and data NFTs get converted to data tokens, which helps safeguard the data. Ultimately, Ocean Protocol aims to unlock the value of data through decentralized and secure exchange to foster innovation in industries such as AI and finance. Ocean Protocol also offers Ocean Nodes, a tool to train and develop AI which can also be sold through the Ocean Protocol data market. Stakeholders include data providers, data consumers, AI developers, AI consumers, etc.

Verifiable Compute

EOTYLAB

Solution Category: Data security, data integrity

Corporate Partnership

Partners: EQTY Lab, Intel, and NVIDIA

Overview:

Verifiable Compute, developed by EQTY Lab, Intel, and NVIDIA, combines hardware security and blockchain technology to create trusted AI workflows. The framework uses Intel's trusted execution environments and NVIDIA GPUs to cryptographically secure AI computations, generating tamper-proof attestations for each process. These records are anchored on Hedera's blockchain via its Consensus Service, ensuring immutable, time stamped verification of AI operation. Designed to comply with regulations like the EU AI Act, the solution enables real-time auditing and governance, addressing concerns around data integrity in sectors like healthcare and finance. By merging cryptographic proofs with decentralized ledger technology, Verifiable Compute bridges AI accountability and Web3 transparency, setting a new standard for secure, auditable AI systems already integrated into Databricks, Palantir, Service Now, Dell

Artificial Superintelligence Alliance

Solution Category: Decentralized Al

Corporate Partnership Fetch.ai, SingularityNET, Ocean Protocol

Overview:

The Artificial Superintelligence Alliance (ASI) unites Fetch.ai, SingularityNET, and Ocean Protocol in a decentralized AI ecosystem powered by blockchain. Fetch.ai contributes autonomous agents for task automation, SingularityNET advances open-source artificial general intelligence (AGI), and Ocean Protocol enables secure, blockchain-based data sharing for AI training. The alliance's unified \$ASI token (merging \$FET, \$AGIX, and \$OCEAN) streamlines governance, staking, and access to AI services, challenging centralized AI dominance. By integrating AI, crypto, and decentralized infrastructure, ASI promotes ethical, transparent, and democratized AI development—key for sectors like healthcare, finance, and logistics. This collaboration marks a pivotal step toward decentralized superintelligence

Artificial Superintelligence

Alliance

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2025 Outlook

Financings and M&A

Financings

2025 VC investments in ABC are expected to increase from the 10% share of 2024 crypto focused investments, driven by Al-powered blockchain applications that will enhance data security, transparency, and efficiency. A favorable regulatory environment and increased institutional adoption of digital assets will further fuel growth, as Al will play a critical role across the entire blockchain and crypto ecosystem

Due to near term opportunities for Al-driven trading, on-chain analytics, automated compliance solutions, and improved blockchain efficiency, VC funds are likely to target startups leveraging Al for smart contracts, decentralized identity, and liquidity optimization. The convergence of Al and blockchain is set to reshape digital finance, making 2025 a consequential year for venture capital in the space.

M&A

Acquisition activity has been very light, as would be expected at this stage of market development. Activity will increase in proportion to the successes of funded companies. A more robust M&A market may not emerge until 2026, or later, which provides enough time for funded companies to begin showing consistent success and growth



2025 Outlook

Market Growth

Ready for Lift-Off

ABC is set to revolutionize various industries, from finance to healthcare, by enhancing security, transparency, and efficiency.

This year will mark the beginning of widespread implementation, with companies leveraging Al's analytical capabilities alongside blockchain's secure, decentralized structure to create innovative solutions.

One of the key methods for implementing AI support through blockchain will be the use of AI agents which automate complex tasks proactively without human interaction aside from the initial programming, definitions, and maintenance.

2025 will see a focus on the financial sector, which is one of the most promising near-term applications of ABC where AI-driven algorithms are expected to work alongside blockchain's immutable ledgers to detect fraud, streamline operations, predict market trends, and automate transactions.

As these technologies continue to evolve together, a new era of digital trust and automation that will reshape how businesses operate and how we interact with technology in our daily lives



About Architect Partners

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