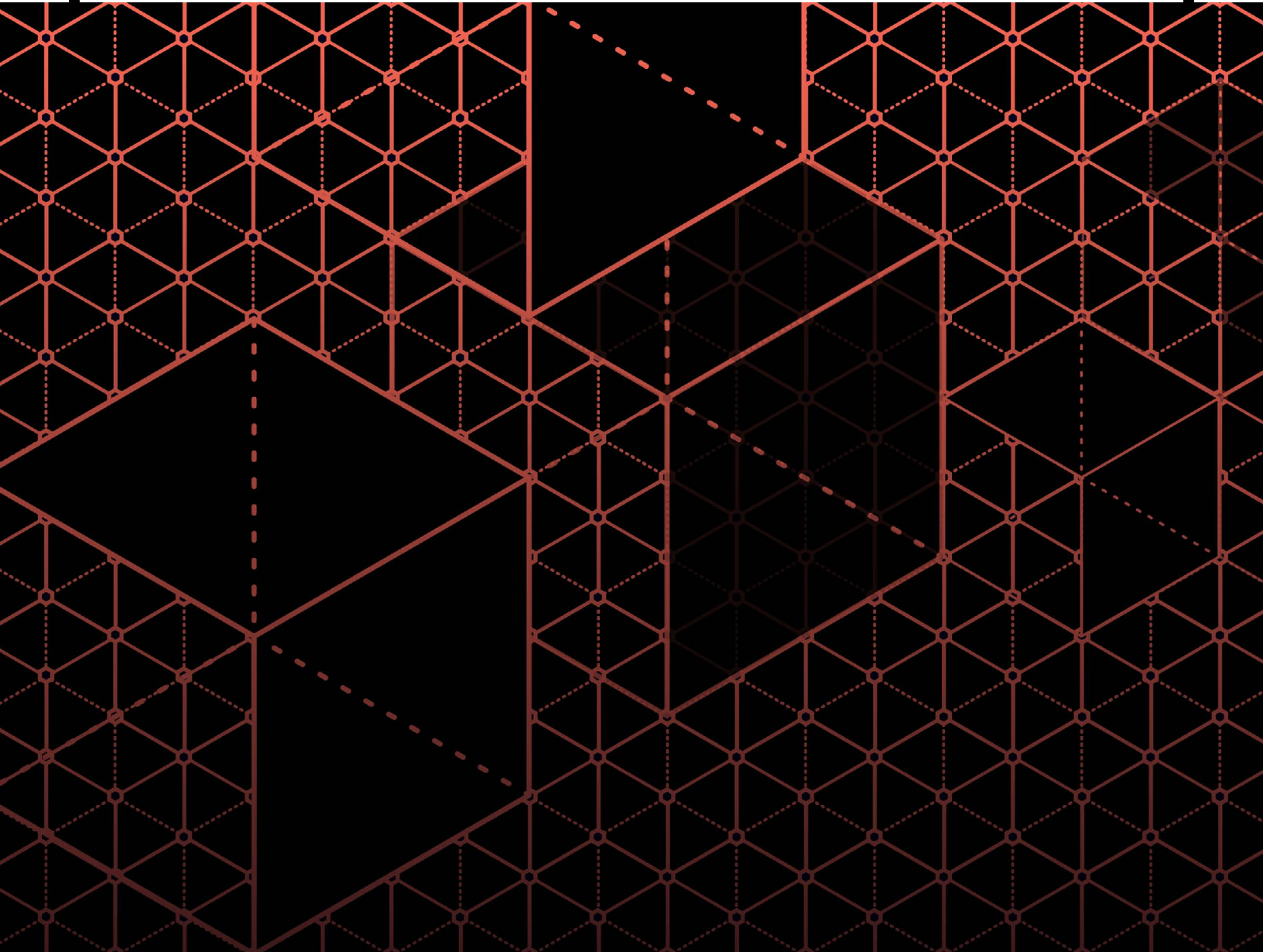


**FORTE**

# The Intersection of Blockchain and Gaming



DATA PROVIDED BY  PitchBook

# Executive summary

- Gaming has been at the forefront of technological adoption for multiple decades, from hardware and software innovations (game development engines, mobile phones, and mobile operating systems) to performance marketing (free-to-play business model). It is therefore not surprising to find gaming at the vanguard of another significant shift: blockchain technology.
- The intersection of blockchain and gaming has seen significant growth throughout 2021, with multiple projects crossing all-time transaction values of \$1 billion. Millions of gamers globally have played blockchain-based games in 2021 alone, and the category is now seen by many investors as a key driver of increasing blockchain adoption for years to come.<sup>1</sup>
- Venture funding within the blockchain gaming space has garnered noticeable momentum as a result, more than tripling the amount of capital raised in 2021 year to date alone compared to the previous three years. Prominent VC firms are either partnering with some of the largest blockchain-based companies or investing directly in the space.
- A handful of the largest blockchain gaming companies have attracted the bulk of VC raised in 2021 year to date, while given the grassroots nature of the sector, many blockchain game projects have accomplished significant user growth without significant capital invested from traditional channels.
- While the bulk of media attention may have been focused on NFT sales within blockchain-based games, segments such as infrastructure and value-added services have seen some of the most activity in terms of enterprise launches and funding. With an increasing number of large, global gaming publishers and developers paying attention to the space, the blockchain gaming industry is poised for further growth in adoption and investment activity.
- Implementing blockchain into games introduces securities laws, anti-money laundering, KYC and other compliance considerations. Given the ever-changing regulatory environment and the associated risks for large, multinational gaming franchises, established gaming companies will most likely explore partnering with blockchain technology providers dedicated to regulatory compliance, gaming expertise and enterprise considerations.

## Contents

<b>Executive summary</b>	<b>2</b>
<b>Industry trends</b>	<b>3</b>
<b>Market trends</b>	<b>5</b>
<b>Market map</b>	<b>7</b>
<b>About Forte &amp; methodology</b>	<b>9</b>

1: "Industry Overview," DappRadar, n.d.

# Industry trends



Adoption is growing, with the number of users across blockchain games tracked by DappRadar in 2021 year to date at over 8 million unique users.<sup>2</sup> After peaking at \$14 billion in transaction volume in a single week in March 2021, weekly volumes have steadily increased from hundreds of millions of dollars to \$2 billion to \$3 billion.<sup>3</sup>

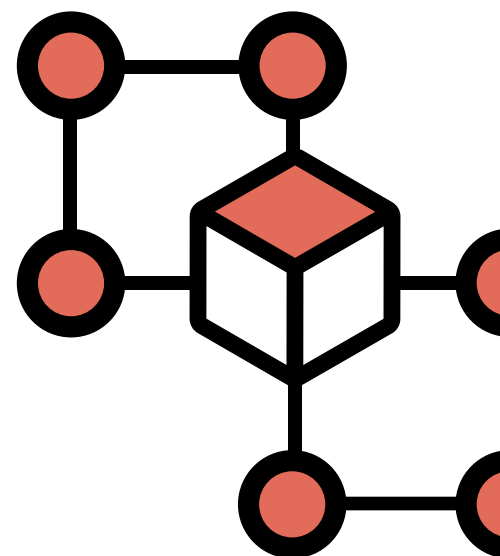


Three gaming coins—Axie Infinity, Enjin Coin and The Sandbox—have all eclipsed \$1 billion in market cap as gaming activity has surged, according to CoinGecko.<sup>4</sup> Overall market capitalizations are expected to grow as more active wallets are created within gaming, new blockchain games launch, and more gaming developers integrate with blockchain technology.



Gaming giant Ubisoft has announced plans to launch blockchain-based games, while EA has stated that it believes blockchain gaming will be an important part of gaming's future. Also, a number of new blockchain-based gaming startups have launched, including Neon, which raised more than \$10 million to develop a blockchain-based AAA shooter game. However, there are some skeptics such as Valve, which has banned blockchain games from its Steam platform (without providing a clear reason; however, industry experts believe this is due to Washington state's gambling laws). In reaction to Valve's announcement, Epic Games took advantage of this change to embrace blockchain games.<sup>5</sup>

Competition is heating up as investors beyond traditional VC firms are creating vehicles to invest and grow the ecosystem. Solana Ventures (Solana's investment arm), Lightspeed and FTX have launched a joint gaming fund, capitalized with \$100 million in total.<sup>6</sup> Also, BitDAO, Forte, Mirana, Alameda Research, and others have committed \$500 million in total to blockchain gaming.<sup>7</sup> This trend is expected to continue as more investors expect gaming to drive the next phase of blockchain adoption after Decentralized Finance and as more creative ways to fuel business growth emerge.



2: "Blockchain Games," DappRadar, n.d., Accessed November 22, 2021.

3: Ibid (same link "Blockchain Games," DappRadar, n.d., Accessed November 22, 2021.)

4: "Top Gaming Coins by Market Capitalization," CoinGecko, n.d., Accessed November 22, 2021.

5: "Valve Criticized on NFT Games Ban," Podcast Game Consultant, Reinout Te Brake, October 2021.

6: "Solana Ventures, FTX, and Lightspeed Launch \$100 Million Blockchain Gaming Fund," Bitcoin.com, Sergio Goschenko, November 8, 2021.

7: "\$500M Blockchain Gaming Proposal Game7 to Come Online with Backing from Industry Veterans," Cointelegraph, Zhiyuan Sun, November 18, 2021.



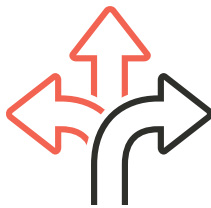
The gaming market is estimated to grow at a compound annual rate of 8.7% between 2019 and 2024, reaching \$218.7 billion.<sup>8</sup> However, some industry firms believe that the market size is significantly underestimated and that even higher growth rates will be driven by blockchain gaming, among other drivers.<sup>9</sup> One of the ways that blockchain technology could unlock additional monetization opportunities in games is secondary markets; for example, according to Newzoo analysis, Counter Strike: GO's annual gross merchandise value was estimated at \$5.6 billion as of September 2021, with the majority driven by third-party websites.



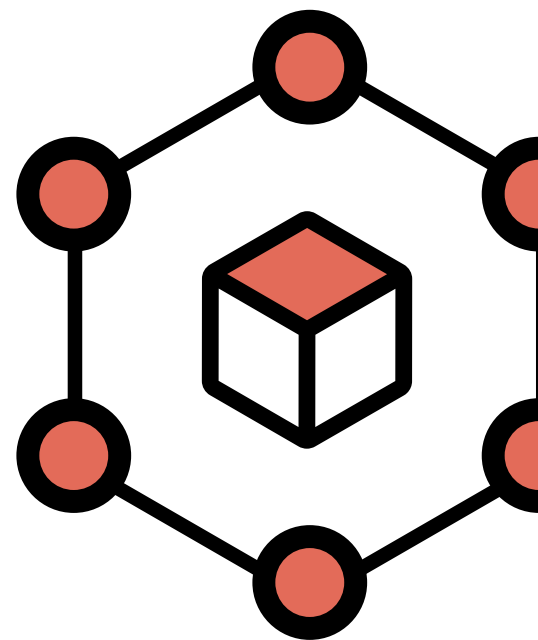
Liquidity in cryptocurrencies remain fractured with hundreds of billions of dollars spread across multiple chains such as Ethereum, Solana, Cosmos and Polygon. Furthermore, new blockchain solutions are being introduced globally at a rapid speed. Simply deciding on one chain can force enterprises to rebuild their solutions and migrate their assets and customers in the future, both of which will result in large amounts of resources wasted. As such, selecting a technology provider that can provide the flexibility and optionality to work with multiple blockchain solutions and eliminate underlying technology risk will be an increasingly important consideration.



While blockchain gaming could accelerate the growth of the gaming market, there are important regulatory considerations that developers and publishers need to keep in mind when introducing blockchain technology into their franchises. Tokens, such as NFTs, are not typically understood to be securities, but infringing on securities laws remains a risk based on the design or utility of the token assets, as well as how these token assets are sold and promoted. Vendors and marketplaces that currently facilitate sales of token assets, such as NFTs, by accepting fiat or cryptocurrency may fall within the purview of the FinCEN Bank Secrecy Act in the U.S. and similar legal frameworks in other jurisdictions. As such, gaming companies are increasingly looking to explore partnering with blockchain technology providers with regulatory know-how, gaming expertise and deep understanding of enterprise considerations.



A number of multinational companies are exploring ways to partake in blockchain-enabled games and the metaverse, as demonstrated by Nike's partnership with Roblox to create Nikeland,<sup>10</sup> Marshmello's<sup>11</sup> and Travis Scott's<sup>12</sup> Fortnite concerts, Nike's new trademarks related to virtual goods<sup>13</sup> and Adidas' partnership with The Sandbox.<sup>14</sup> As such, many intellectual property owners are exploring ways to further strengthen and expand their IPs, diversify their revenue streams and engage with their consumers who are demanding more enriching experiences in the virtual world: the metaverse and blockchain gaming serving as natural media for such efforts. An increasingly important consideration for these IP owners will be ensuring full regulatory compliance.



8: "Global Games Market Report 2021," Newzoo, July 1, 2021.

9: "Gaming Industry Nearly Twice as Large as Reported, at \$336B," Bitkraft, September 15, 2021.

10: "Nike Teams Up with Roblox to Create a Virtual World Called Nikeland," CNBC, Jessica Golden, November 18, 2021.

11: "Fortnite's Marshmello Concert Was the Game's Giggest Event Ever," The Verge, Andrew Webster, February 21, 2019.

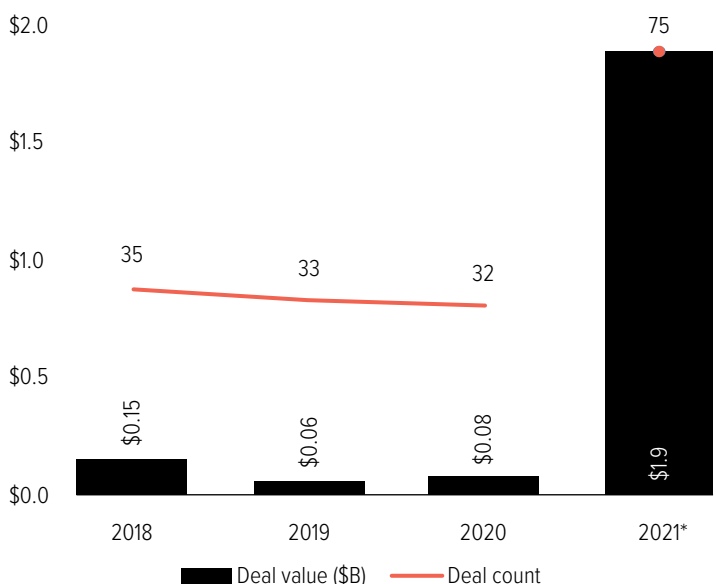
12: "Fortnite and Epic Games Present: Astronomical," Fortnite and Epic Games, n.d.

13: "Nike is Quietly Preparing for the Metaverse," CNBC, Jessica Golden, November 2, 2021.

14: "Metaverse Platform The Sandbox's SAND Token Surges 25% After Adidas Teases Partnership," CoinDesk, Omkar Godbole, November 24, 2021.

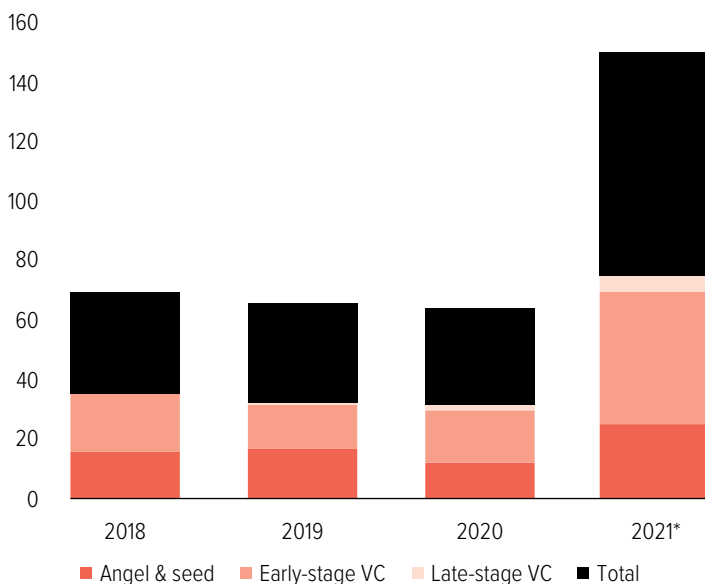
# Market trends

### VC deal activity in crypto/blockchain & gaming



Source: PitchBook | Geography: U.S.  
\*As of October 1, 2021

### VC deal count by stage in cryptocurrency & blockchain



Source: PitchBook | Geography: U.S.  
\*As of October 1, 2021

### Blockchains by NFT sales volume (all-time)

Company	Sales	Buyers	Transactions	Sellers
Ethereum	\$8,830,811,272	395,578	3,875,326	232,384
Ronin	\$2,966,367,331	957,165	8,580,756	603,369
Flow	\$774,204,359	371,913	11,342,354	364,147
Solana	\$576,744,659	92,775	464,659	99,088
WAX	\$233,537,171	453,879	10,118,697	873,234
Polygon	\$130,023,683	48,148	192,427	28,741
Panini	\$17,557,611	6,693	191,833	12,508
Theta	\$14,532,084	368	3,397	479
BSC	\$5,042,152	1,965	19,467	1,823
Zilliqa	\$15,534	3	7	7

Source: Cryptoslam, obtained on November 8, 2021.

The sheer growth of venture funding within the blockchain and gaming space in 2021 has been worthy of note. No fewer than 75 traditional venture financing rounds have closed within the space in the first three quarters of the year, relative to prior annual tallies barely exceeding 30 from 2018 to 2020. Moreover, \$1.9 billion was invested across those 75 transactions. The median VC deal size in 2021 to date is \$3.3 million across blockchain gaming, but the average is a staggering 10x that size, at \$33.7 million.

**The median VC deal size in 2021 to date is \$3.3 million, but the average is a staggering 3x that size at \$33.7 million.**

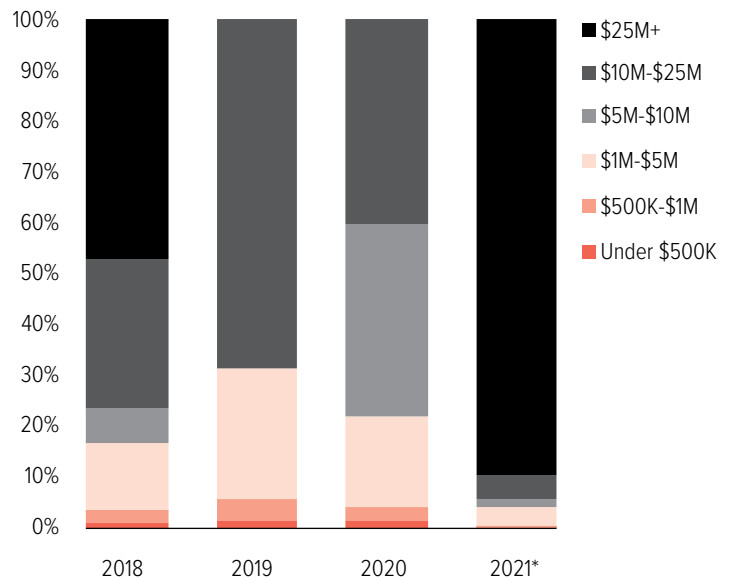
Prominent institutional investors are either directly placing calculated bets into the blockchain gaming space or partnering with investment arms of high-profile enterprises, including a16z, Sequoia Capital, Lightspeed, and others. The market used to consist primarily of financing rounds sized at the lower end, but 2021 has recorded 30 completed fundings sized between \$1 million and \$5 million as of the start of October, triple the prior high of 10 in 2018. Moreover, eight rounds sized \$25 million or more have closed, accounting for the vast bulk of all VC invested in the space.

**The gaming coin market cap is estimated at \$25.8 billion as of November 8, 2021, driven primarily by major players.<sup>15</sup>**

In 2021 year to date, the majority of funding in blockchain gaming was attributable to a handful of outsized fundraises. Fantasy football platform Sorare, economic technology provider for blockchain-based games development platform Forte, and blockchain gaming developer Dapper Labs have accounted for the bulk of VC invested in 2021 through the start of Q3; in mid-November, Forte also raised \$725 million of Series B funding. As indicated by these blockbuster raises, the blockchain gaming sector will likely see additional large financings as some blockchain gaming platforms continue to experience significant user growth and transaction volume. Bolstered with these large financing rounds, blockchain gaming companies will need to ensure a seamless user experience (hybrid custody solutions and easy onboarding for users who are not blockchain-native) and a compliant business model (KYC, AML, CFT, and others) to further attract both users and large enterprises.

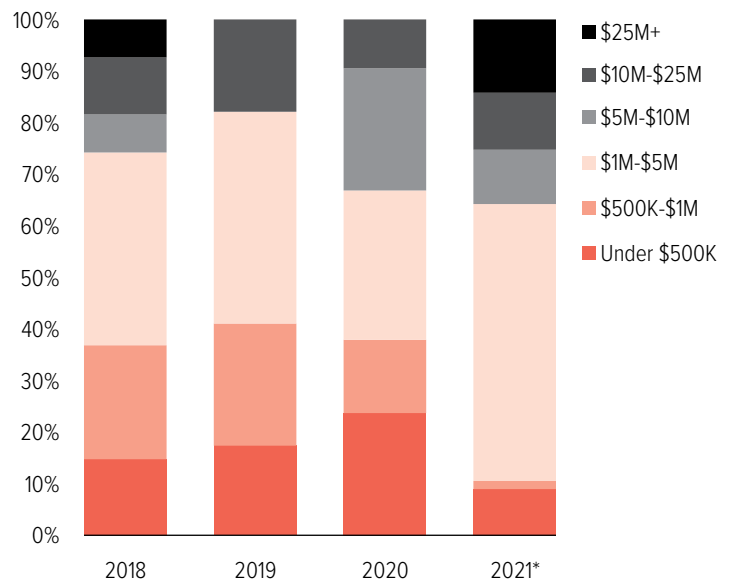
Given gaming's unique challenges—including intense computational throughput due to consumer demand for high-quality graphics and the innate live nature of games—companies will need to satisfy the high expectations of gamers today while scaling up to accommodate the multi-year growth in consumer demand for mass adoption.

### VC deal value by size in cryptocurrency & blockchain



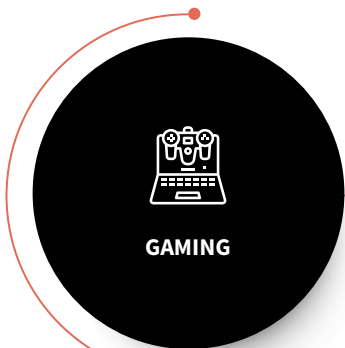
Source: PitchBook | Geography: U.S.  
\*As of October 1, 2021

### VC deal count by size in cryptocurrency & blockchain



Source: PitchBook | Geography: U.S.  
\*As of October 1, 2021

15: "Top Gaming Coins by Market Capitalization," CoinGecko, n.d., Accessed November 8, 2021.



## GAMING DEVELOPER/PUBLISHER

## VALUED-ADDED SERVICES

## INFRASTRUCTURE

## BLOCKCHAIN





## About:

Forte is building economic technology for games that is secure, easy to use, and provides a great player experience. Its end-to-end blockchain platform enables the emergence of community economics, a system where the interests of game developers, players, and greater game communities are aligned, leading to healthier, sustainable game communities. The team is composed of longtime industry members (Unity, ngmoco, Riot Games, Electronic Arts, Sony, and Rockstar Games, among others), and is currently working with over 40 acclaimed game developers from across the globe to reimagine the economics of games.

Forte's announced partners include Gallium Studios (Will Wright, creator of The Sims), Hi-Rez Studios, Monster Ideas, Penrose, GC Turbo, Other Ocean, Kongregate, nWay, Magmic, and more.

Forte has raised more than \$900 million from leading gaming and media publishers, blockchain partners, and investors such as Sea Capital, Kora Management, Andreessen Horowitz (a16z), Griffin Gaming Partners, Battery Ventures, Canaan Partners, Animoca Brands, Big Bets (Huuuge Games), Overwolf, Playstudios, Warner Music Group, zVentures (Razer), Cosmos, Polygon Studios, Solana Ventures, and Tiger Global.

## Methodology:

PitchBook's standard venture financing methodology was used to classify venture transactions, which can be found here:

<https://pitchbook.com/news/articles/pitchbook-report-methodologies>

The primary industry verticals of cryptocurrency/blockchain in the PitchBook Platform were used to define the company parameters for this report. The geographic scope was global unless otherwise noted.