



# Solana

## Lesson 21

### Lesson on Solana: Revolutionizing Blockchain Speed and Efficiency

Of all the altcoins that I learned about from Ryan, I'm interested in building a longer-term investment position in three coins, one of them being Solana. In future lessons, I'll include lessons to show participants why and how I'm speculating or investing in the digital economy—although I'll always caution people to complete their own due diligence because I'm not a financial advisor; I'm a guy who served decades in prison and there are days when my portfolio goes up in value, and days when it drops precipitously.

Developers describe Solana as a high-performance blockchain known for its incredible speed and efficiency. Unlike its predecessors, Solana introduced several innovations that addressed the scalability and throughput challenges in the blockchain ecosystem. This lesson gets into the origins, key features, and potential applications of Solana, emphasizing its role in the digital economy and how it could be leveraged for social initiatives like those we promote at the Prison Professors Charitable Corporation.

### The Origins of Solana

Anatoly Yakovenko founded Solana in 2017, with the vision of creating a blockchain capable of hosting decentralized, scalable applications without compromising security or decentralization. Yakovenko's background in compression algorithms at Qualcomm inspired Solana's unique consensus mechanism, Proof of History (PoH), which allowed for greater throughput and efficiency.

### Key Features of Solana

- » **Proof of History (PoH):** A novel approach to blockchain consensus that incorporates time into the blockchain itself, allowing for more efficient transaction ordering and processing.
- » **High Throughput:** Solana can process thousands of transactions per second, making it one of the fastest blockchains in the world.
- » **Low Transaction Costs:** Despite its high throughput, Solana maintains extremely low transaction costs, facilitating micropayments and high-volume applications.
- » **Scalability:** Solana's architecture ensures it remains scalable as demand increases, without compromising on speed or cost.

### Practical Application: Serum

Let's simplify how one business relied upon the Solana altcoin to create a new platform called Serum. With Serum, people could trade different types of digital money (like Bitcoin or Ethereum), by using the technology of Solana, which is a kind of super-fast and cheap way to process transactions.

**Serum:** A Simple Trading Place on Solana

### What is Serum?

Imagine you have a marketplace where you can buy and sell digital money, just like trading cards. Serum is like a big digital marketplace, but it's special because it uses Solana's technology.

### Why Solana?

Solana is like a super expressway with lots of lanes, so lots of cars (or transactions) can go fast without getting stuck in traffic. This means when you want to buy or sell your digital money on Serum, it happens almost instantly and without costing a lot of coins for the service.

### What's So Special About Serum?

**Speed and Cheap:** Because it's built on Solana, trading on Serum is super fast and cheap. You don't have to wait long or pay a big fee to trade.

**On-Chain Order Books:** Serum keeps a detailed list (like a ledger) of who wants to buy or sell, and at what price, directly where everyone can see it on the blockchain. This is like having a bulletin board in a marketplace where everyone's offers are posted for all to see.

**Trading Different Things:** Serum is working on letting you trade not just digital money but also other kinds of digital stuff from different places, all in one spot.

### Why Do People Like It?

**Fast Like a Game:** Trading on Serum feels like playing a video game because it's so fast. You don't have to wait around; it's instant action.

**Saves Money:** Because it doesn't cost much to make trades, you get to keep more of your money.

**More Choices:** It's aiming to let you trade lots of different things, giving you more options to buy or sell.

### What's the Big Deal?

Serum shows how using Solana can make trading digital money and other things faster, cheaper, and more fun. It's like upgrading from an old, slow computer to the latest, fastest one.

In simple terms, Serum makes it easier and cheaper for people to trade digital money, and it's all thanks to the super-fast technology of Solana. This technology opens up new possibilities for buying and selling digital things online without the headaches of high fees or slow speeds.

### Investment:

On Sunday, February 25, 2024, at 6:03 am Pacific time, I noticed that the price of Bitcoin continued to rise on the Coinbase exchange: \$51,612.70

- » Total investment in BTC at end of day, February 19, 2024: \$192,202.76.
- » Total holdings: 4 BTC
- » Total value: \$206,450.80
- » Gain or Loss: \$14,248.04



The value of my holdings surpassed the total amount that I had paid by \$14,248.04 since I began investing in cryptocurrency, on January 31, 2024.

Separately, I purchased 1 ETH. It was valued at \$2,954.74 and Coinbase charged me a fee of \$66.48. My total investment: \$3,021.22. Value of ETH at end of day: \$3,037.99.

- » Value of Chainlink (Link): \$18.66
- » Value of Cardano (ADA): \$0.589
- » Value of Cosmos (ATOM): \$10.27
- » Value of Dogecoin (DOGE): \$.08615
- » Value of Litecoin (LTC) today: \$69.94
- » Value of Monero (XMR) today: \$124.76
- » Value of Polkadot (DOT) today: \$7.77
- » Value of Ripple (XRP) today: \$0.5434
- » Value of Solana (SOL) today: \$102.66

### Disclaimer:

For full transparency, I am not an investment advisor. Our nonprofit, Prison Professors, offers these lessons for the singular purpose of helping people learn more about the digital economy. I provide information on my personal investments to show that even a person who served 26 years can participate in the digital economy. I am an investor and a speculator, understanding the risks. No one should invest in any asset class without a strategy and a plan, as shown through our introductory course: Preparing for Success after Prison. Always develop an understanding of investment risks—especially with cryptocurrency.

In our next lesson, we'll go over another altcoin, Avalanche.

### Critical Thinking Questions:

1. How does Solana's Proof of History consensus mechanism contribute to its high throughput and low transaction costs?
2. In what ways could a platform like EduChain, built on Solana, revolutionize access to education?

3. Consider the scalability of Solana. How does its architecture ensure the network can grow without sacrificing performance or increasing costs?

### **Advocacy Initiative:**

Prison Professors encourages the exploration of blockchain technology to create positive social changes, such as improved access to education. Solana's platform presents an exciting opportunity for developing applications that can make a real difference in the world. We invite you to be a part of our initiative by documenting all that you're learning through our MasterClass on the Digital Economy.

Please share your story and responses through the manner that works best for you:

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