

## **Nash Ventures – Number Wizard Task**

Finding useful data from a cryptocurrency is a byzantine task since it involves daily changes and largely involves the emotions of customers towards a particular currency. However, a pattern can be observed in the cryptocurrency prices and trade volume which can be used for forecasting the faith of a particular cryptocurrency.

In this activity, I have observed the trends of 40 different cryptocurrencies which are largely as follows - :

- 1) Trade Volume of a particular cryptocurrency for each day
- 2) How the maximum, minimum, opening and closing values for each cryptocurrency vary (using candlestick diagram)
- 3) Market Cap for each cryptocurrency
- 4) Future Forecast for each cryptocurrency till April 2018 using FBProphet module used for forecasting

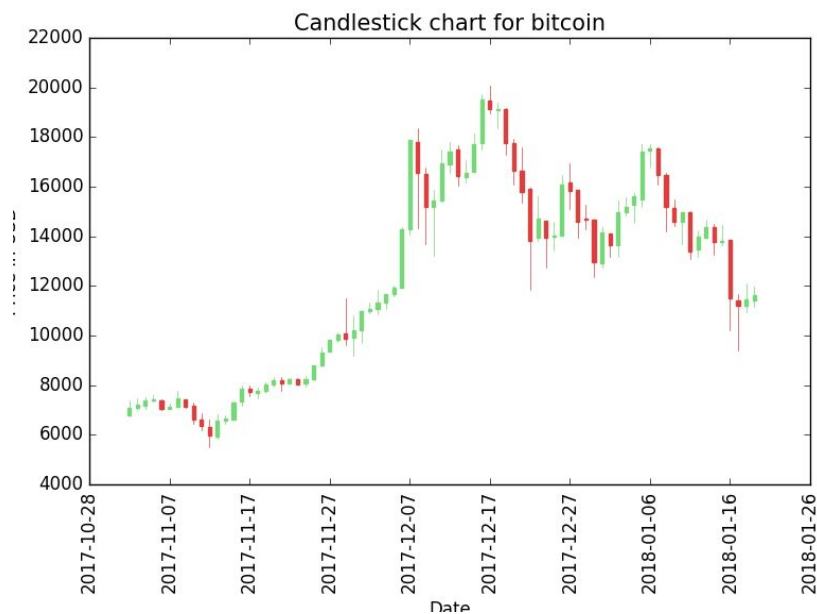
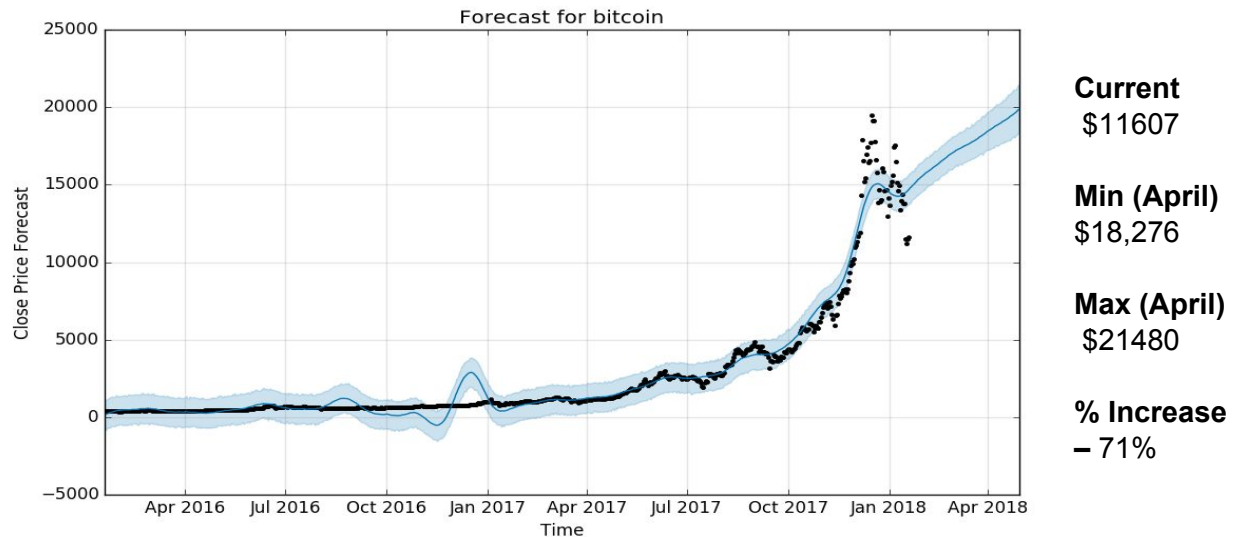
In this documentaion, I will present a detailed analysis of 10 emerging cryptocurrencies currently which can lend a user heavy returns upon investment.

Some of the cryptocurrencies covered here are-:

- 1) BitCoin
- 2) VeChain
- 3) LiteCoin
- 4) Ethereum
- 5) Zcash
- 6) Ripple

# 1. Bitcoin

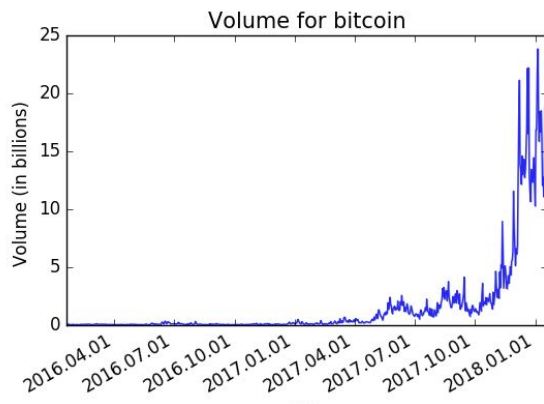
Closing Price Forecast by April 2018 (data scraped from <https://coinmarketcap.com/>)



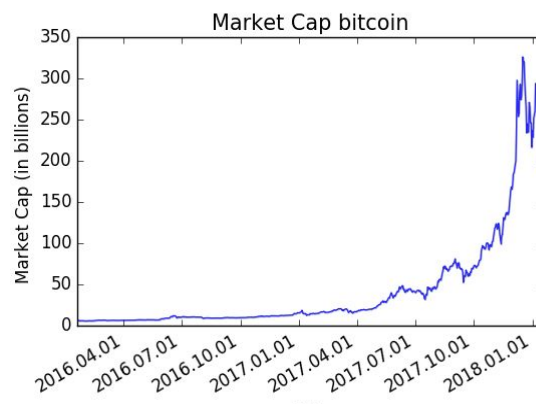
## Candlesticks Diagram (Price In USD vs Date)

The candlestick diagram shows the highest, lowest opening and closing price for each day. We can see that recently the Bitcoin has become highly volatile hence inspiring fear in its customers. Also, the sudden increase has led to an apprehension that Bitcoin will eventually also experience a tantamount decrease. Recently, Bitcoin suffered a major decrease in its price and dropped down to 50% of its value. Nevertheless, it is still a hot favourite of all the cryptocurrencies. The ever increasing volume and Market Cap indicates that.

### Trade Volume vs Time Graph



### Market Cap vs Time Graph



Note -: We have seen major fluctuations in the bitcoin trade volume which indicates the restive state of bitcoin enthusiasts. However, such tremors are expected now and then in the cryptocurrency world.

## Summary

This week, the world's most popular cryptocurrency lost almost half of its peak value from a month ago, and once traded at under \$10,000 (£7,229) - its lowest value since 27 November last year.

Countries considering a crackdown on cryptocurrencies include China, Japan and South Korea, whose finance minister Kim Dong-yeon confirmed that they were considering shutting down domestic exchanges.

However, such a trend was not endemic to Bitcoin and other cryptocurrencies such as Ethereum and Ripple also plummeted down due to fear of countries' governments. Nevertheless, Bitcoin still remains the most profitable of all the cryptocurrencies and generates a trade volume far superior than others.

### Reason for success

1. It was the first blockchain to enter in the market.
2. **Freedom in Payment**
  - With Bitcoin it is very possible to be able to send and get money anywhere in the world at any given time.
  - You don't have to worry about crossing borders, rescheduling for bank holidays, or any other limitations one might think will occur when transferring money.
  - You are in control of your money with Bitcoin. There is no central authority figure in the Bitcoin network.

### 3. Control and Security

- Allowing users to be in control of their transactions help keep Bitcoin safe for the network.
- Merchants cannot charge extra fees on anything without being noticed. They must talk with the consumer before adding any charges.
- With the block chain, all finalized transactions are available for everyone to see, however personal information is hidden.
- Your public address is what is visible; however, your personal information is not tied to this.
- Anyone at anytime can verify transactions in the [Bitcoin block chain](#).
- Bitcoin protocol cannot be manipulated by any person, organization, or government. This is due to Bitcoin being cryptographically secure.

### 4. Huge amounts of trade volume and Market Cap

#### Certain Disadvantages

##### 1. Risk and Volatility

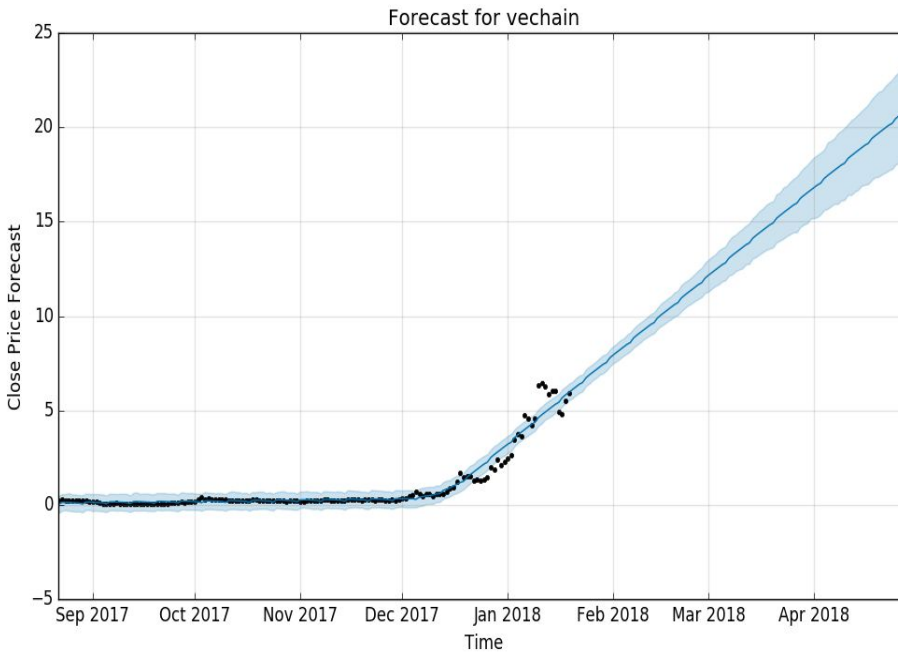
- Bitcoin has volatility mainly due to the fact that there is a limited amount of coins and the demand for them increases by each passing day.
- However, it is expected that the volatility will decrease as more time goes on.
- As more businesses, medias, and trading centers begin to accept Bitcoin, its' price will eventually settle down

##### 2. Other Coins Are Rising:

While bitcoin's price has been rising, its share of the total cryptocurrency market [has been falling](#). While it represented 80% of cryptocurrency trading a year ago, its share is now less than 50% as the value of Ethereum, Litecoin, Ripple and others rise..

## 2. Vechain

Closing Price Forecast by April 2018 (data scraped from <https://coinmarketcap.com/>)

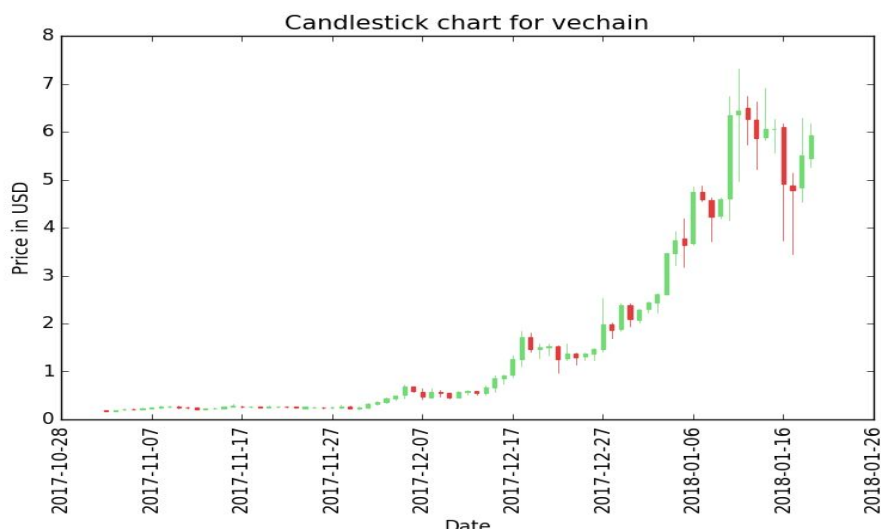


**Current Price:**  
\$5.92

**Min (By April):**  
\$18.42

**Max (By April):**  
\$23.37

**% increase  
expected:**  
255%



**Candlesticks  
Diagram (Price In  
USD vs Date)**

We can see a steady increase in the prices. It is predicted that the prices of VeChain will rocket in 2018. Even though it is unheard of by the general people, big companies are interested in VeChain because of its involvement in IoT.

## Summary

VeChain is a global leading blockchain platform for products and information.

VeChain is the world's leading Enterprise-focused dApp/ICO platform for products and information. It aims to connect blockchain technology to the real world by providing robust infrastructure as well as IOT integration, with scalability up to 10,000 tx/s and pioneering in building real world applications. This is being achieved through partnerships and collaborations with innovative brands and industries.

The coin launched two-three years ago in 2015 being part of a product that does have actual users right now. In the community and ecosystem we enthusiast about maybe everyday that is rare to meet.

The firm backing up the digital currency is a BaaS company [Blockchain-as-a-Service] targeting on developing towards the IoT [Internet of Things]. Might sound similar to IOTA [MIOTA], however unlike the later one – VeChain is on the authenticity within supply chains *terms*.

The idea is that, by using blockchain technology, the authenticity of goods that are purchased can be verified. It's a system that aims to ensure product quality, but in a decentralized, global network that cuts across industries. Using smart chips, products are tracked throughout their lifecycles.

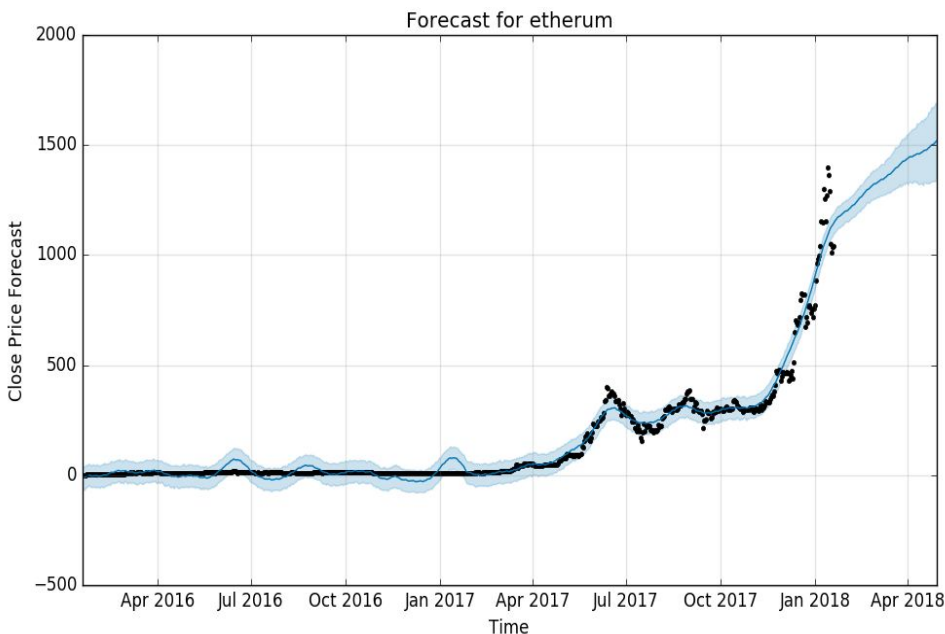
The chips can also help with quality control, like with agricultural or food product where a change in temperature could affect the goods.

## Disadvantages

1. This cryptocurrency is unheard among people since it has only just began to rise in value

# 3. Ethereum

Closing Price Forecast by April 2018 (data scraped from <https://coinmarketcap.com/>)

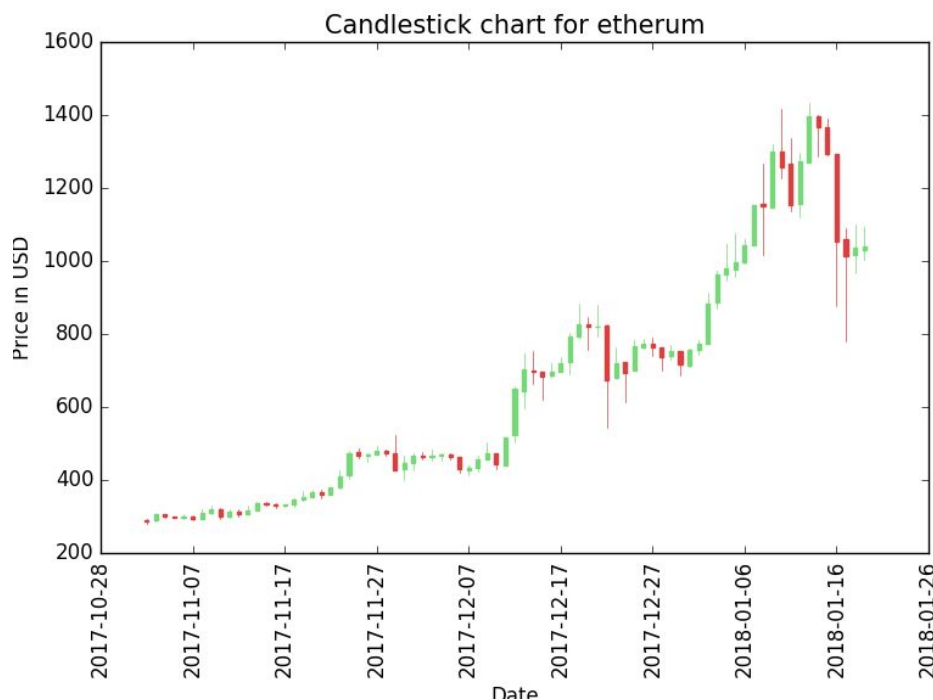


**Current Price:**  
\$1039.1

**Min (By April):**  
\$1342.65

**Max (By April):**  
\$1691.02

**% increase  
expected:**  
46%

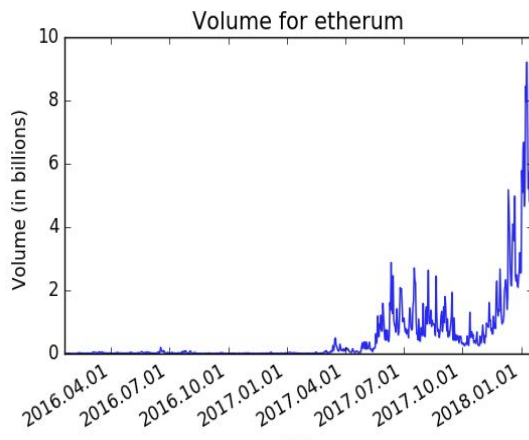


**Candlesticks  
Diagram (Price In  
USD vs Date)**

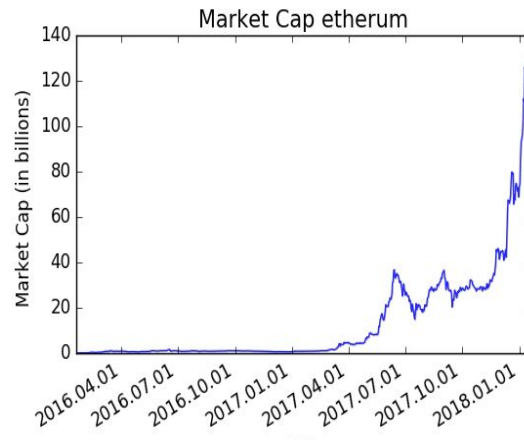
If you notice carefully, you might notice a slight negative correlation between bitcoin and ethereum. Other than that, we can notice that ethereum has been fairly stable compared to

bitcoin and other cryptocurrencies.

**Trade Volume vs Time Graph**



**Market Cap vs Time Graph**



Note - : We can observe a general turbulence in trade volume for each cryptocurrency which indicates the nascent stage of this digital boon and the doubts in the mind of governments, media and the general people.

Even though, Bitcoin recently plummeted, Ethereum managed to stay comparatively stable.

## Summary

Like Bitcoin, Ethereum is a distributed public blockchain network. Although there are for some significant technical differences between the two, the most important distinction to note is that Bitcoin and Ethereum differ substantially in purpose and capability. Bitcoin offers one particular application of blockchain technology, a peer to peer electronic cash system that enables online Bitcoin payments. While the Bitcoin blockchain is used to track ownership of digital currency (bitcoins), the Ethereum blockchain focuses on running the programming code of any decentralized application.

### Advantages

1. Ethereum uses the turing language on the blockchain. This allows the exchange of simple or complicated contracts on the network which allows the elimination of third parties - as per an article I wrote on Ethereum yesterday. This makes Ethereum into a killer app on the blockchain that very few others have.
2. Ethereum is considered a rival for bitcoin with a good roadmap the next 3 to 5 years
3. One of the most stable cryptocurrencies, it does not experience high changes as indicated in the candlestick and the forecast diagram.

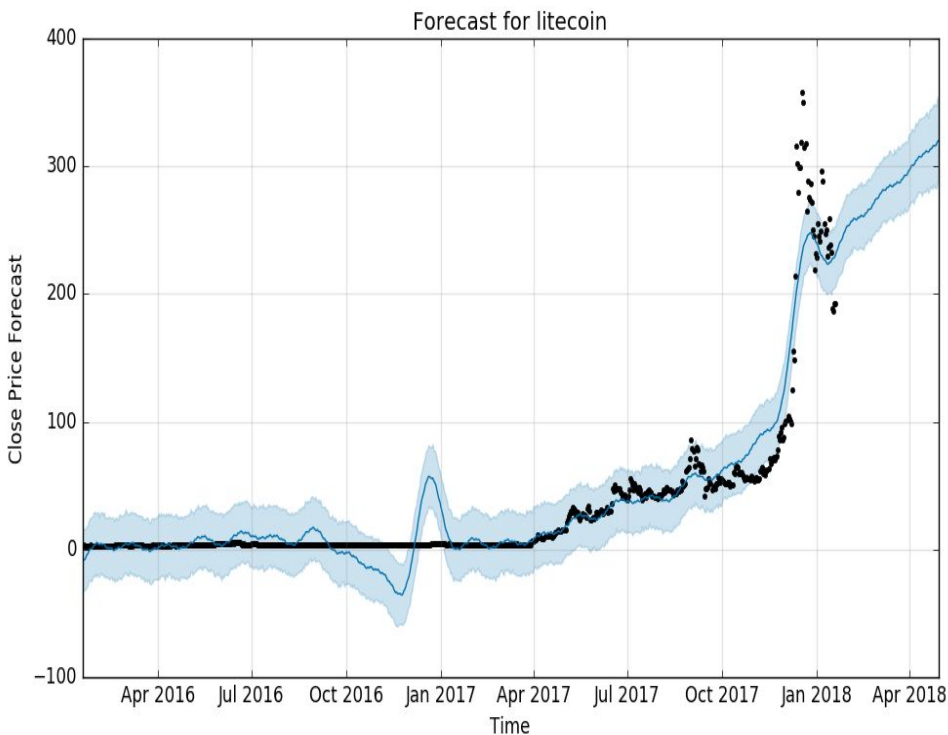


## Disadvantages

1. Bitcoin only really acts as a ledger, but Ethereum is trying to be a ledger/super computer/smart contract generator/etc for a lot more users. This complexity gives it flexibility, but makes it less optimized for any one use case.
2. The worst thing I find about Ethereum is the lack of documentation to help people become Ethereum developers.
3. Even though it is second-ranked in the world of cryptocurrencies, it is still far behind Bitcoin and it is believed that it will never be able to reach Bitcoin because of its complexity.

## 4. Litecoin

Closing Price Forecast by April 2018 (data scraped from <https://coinmarketcap.com/>)



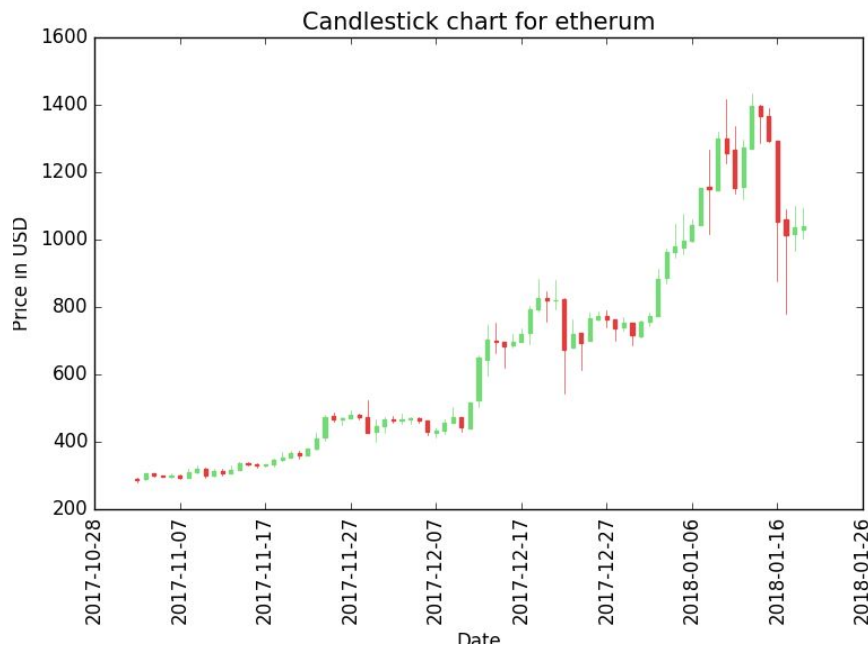
**Current Price:**  
\$192.96.1

**Min (By April):**  
\$288.65

**Max (By April):**  
\$352.02

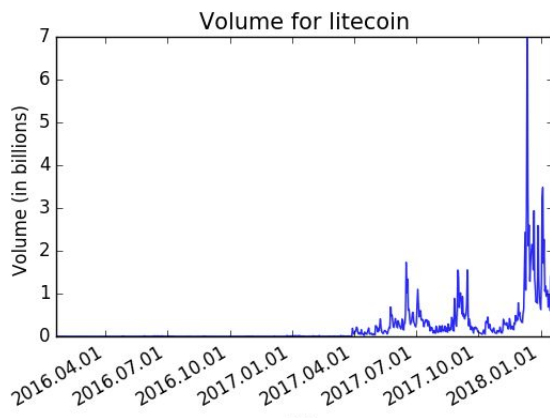
**% increase  
expected:**  
65%

### Candlesticks Diagram (Price In USD vs Date)

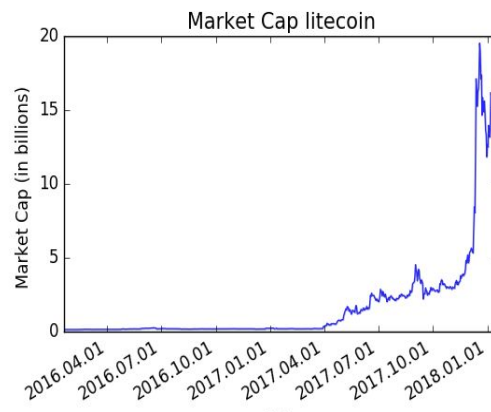


Litecoin is famous for its tight correlation with Bitcoin as clearly observed in the forecast diagram. This simply means that as **bitcoin** rises, so too does other cryptocurrency assets. When **bitcoin** falls, it tends to take down other cryptos. The pattern is observed in every cryptocurrency.

### Trade Volume vs Time Graph



### Market Cap vs Time Graph



Litecoin (LTC) is a peer-to-peer cryptocurrency and open source software project released under the MIT/X11 license. Creation and transfer of coins is based on an open source cryptographic protocol and is not managed by any central authority. The coin was inspired by, and in technical details is nearly identical to, Bitcoin (BTC).

Litecoin is like silver to Bitcoin Gold.

## Advantages of Litecoin over Bitcoin:

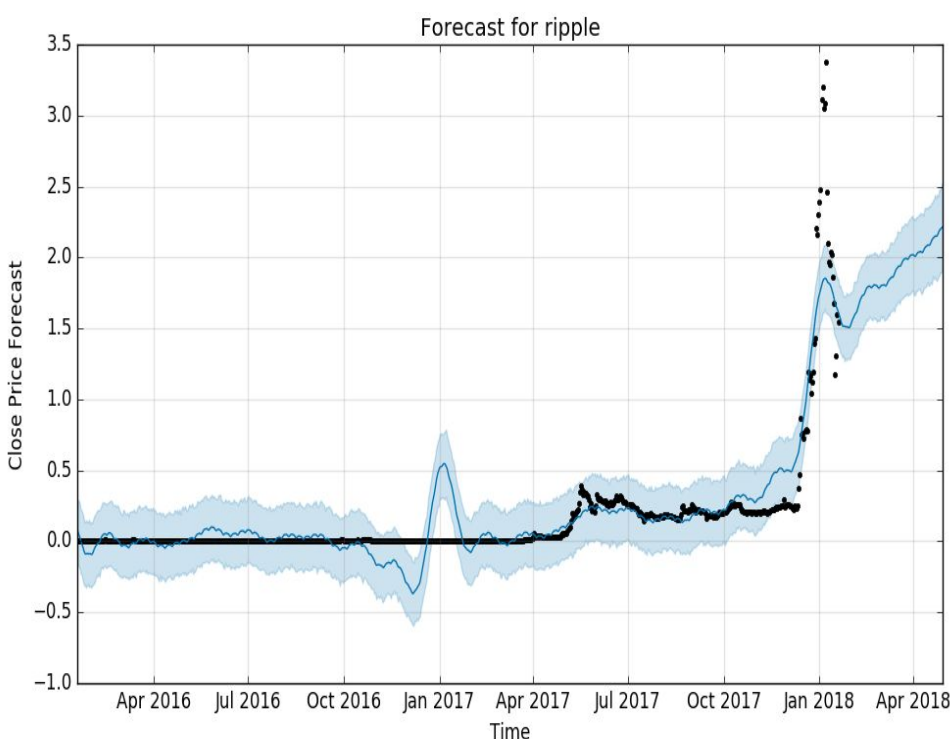
- Presence of leader like figure - Charles Lee. Many people still have issues with Bitcoins because they cannot trust money with no control over the future.
- ASIC resistant. Litecoin took Bitcoin code and changed its algorithm from SHA256 to Scrypt . This has avoided centralisation of mining activities.
- Less political. Bitcoin is plagued with internal political wars over who control the future development of Bitcoin
- Faster to adopt new technologies. Bitcoin is so massive that any single change may require a year of infighting. SegWit took more than a year to get activated.

## Disadvantages

- Since Bitcoin and Litecoin are fairly same, when technical details are compared, there is no apparent reason one should invest in Litecoin.

# 5. Ripple

Closing Price Forecast by April 2018 (data scraped from <https://coinmarketcap.com/>)

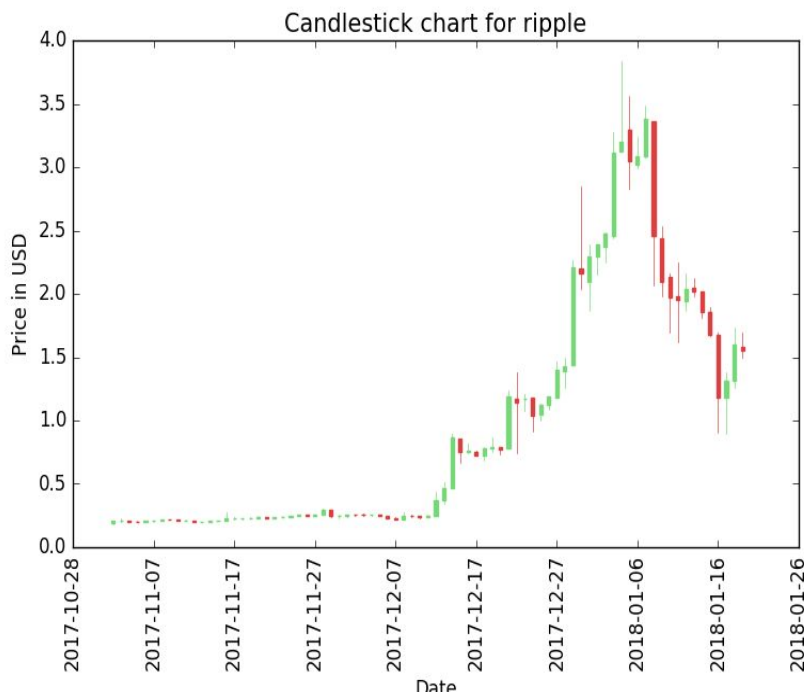


**Current Price:**  
\$1.55

**Min (By April):**  
\$1.92

**Max (By April):**  
\$2.5

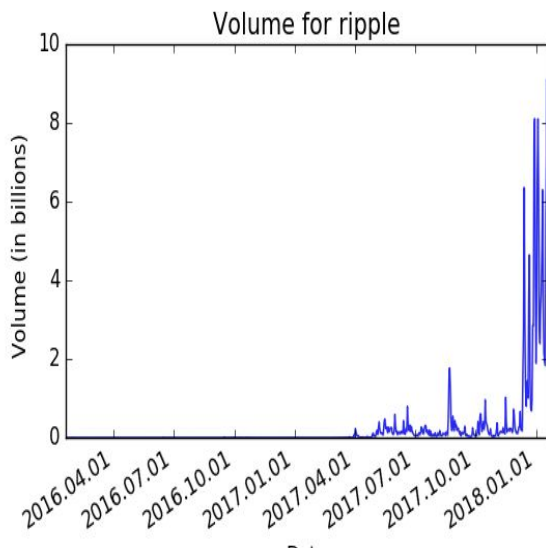
**% increase  
expected:**  
42%



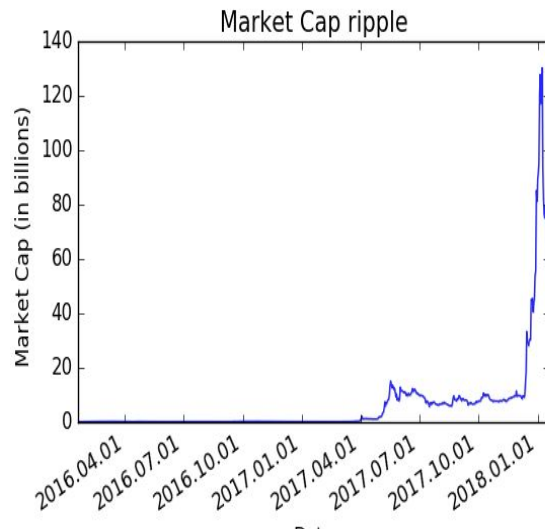
### Candlesticks Diagram (Price In USD vs Date)

Ripple was just started in 2012 but is already turning heads. Where other cryptocurrencies remain stagnant for the first few years, Ripple is already observing sharp spikes and a promised growth. However, it is also very volatile and can observe sharp falls too.

### Trade Volume vs Time Graph



### Market Cap vs Time Graph



Ripple is more known for its digital payment protocol than its cryptocurrency, XRP. Ripple operates on an open source and peer-to-peer decentralized platform that allows for a seamless transfer of money in any form, whether USD, Yen, litecoin, or bitcoin.

## Advantages

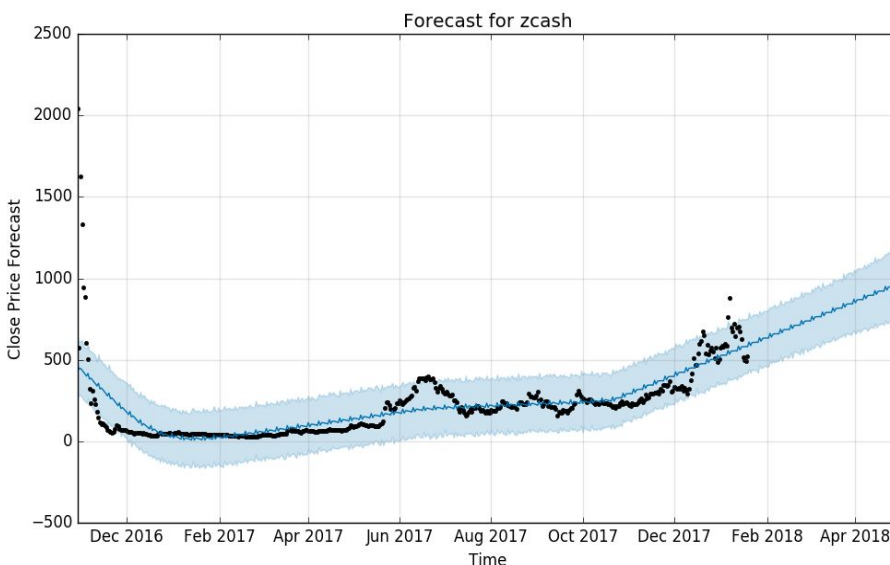
- As of January 9, 2018, XRP is the third largest coin by market capitalization
- Ripple is the only digital asset specifically designed for financial institutions. It's pricing model is one part software license, one part professional services and one part transaction fees.
- Actually there are \$18 Trillion of cross-border payments made every year with a combined cost of about \$1 trillion a year. Ripple solution through its blockchain technology allows assets to be transferred from one party directly to another without middleman, validated, permanent, completed instantly, irrevocably.

## Disadvantages

- Unlike many other popular cryptocurrencies, XRP is not mined. The company is centralized in many ways. There are whopping 100 billion coins in existence, and they were created by the company Ripple. Ripple has been fast growing and is currently at a market cap of just about \$7.7bn. This means that the current circulating supply of about 38.5 billion XRP is trading at around \$0.2 each.
- It's very important for Ripple as a company to be very transparent in XRP markets so every quarter they publish a report that specifies how much they sold in the open market and to institutional buyers.
- The number of institutions that have partnered with Ripple has exceeded 100 and is growing almost daily and very rapidly. Yet the price of Ripple has steadily fluctuated around \$0.2 for the past months.

# 6. ZCash

**Closing Price Forecast by April 2018 (data scraped from <https://coinmarketcap.com/>)**

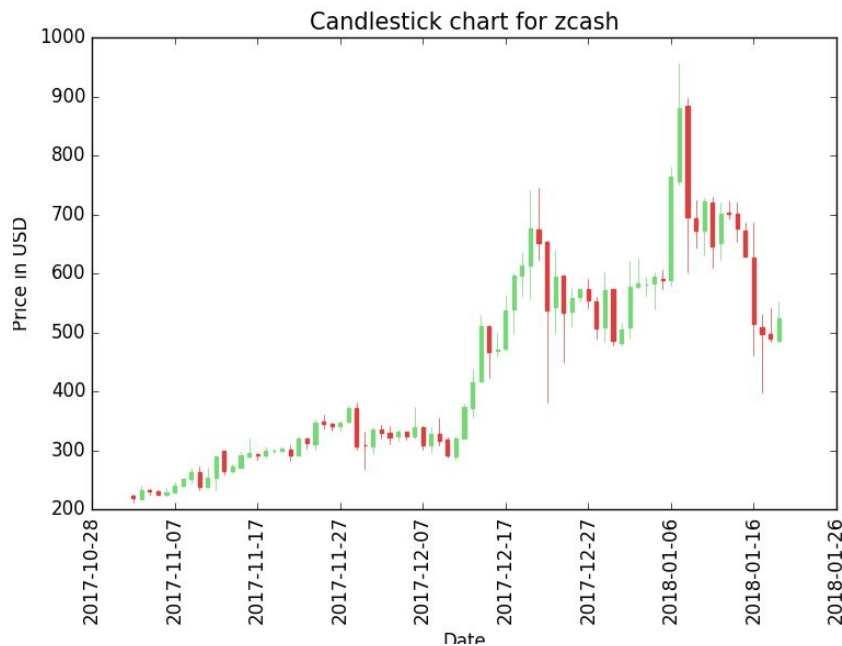


**Current Price:**  
\$524.34

**Min (By April):**  
\$724.89

**Max (By April):**  
\$1182.82

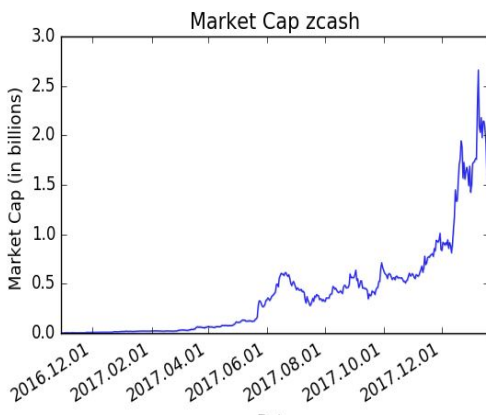
**% increase expected:**  
82%



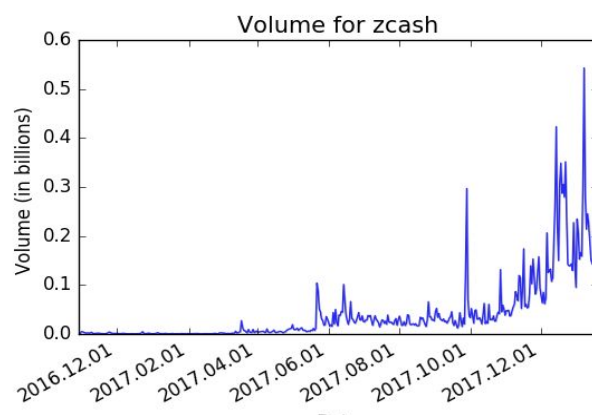
### Candlesticks Diagram (Price In USD vs Date)

Considering that the current price of zcash and the promised increase in the next few months makes it a worthy candidate for investment. However, the liquidity procedure returns and centralization makes enthusiasts skeptical.

### Trade Volume vs Time Graph



### Market Cap vs Time Graph



### Disadvantage

- Zcash has caused a lot of controversy for its method of distributing the crypto currency. The organisation is not set up as an open source community but as a Company. This is the first major difference to Bitcoin and other crypto currencies such as ethereum. The second major difference is how they plan to reward investors and workers in the Company which is by a tax on mining rewards called "Founders reward"

- While Zcash's cryptography is bleeding-edge, it is "highly experimental" and "relatively weak,"
- There will also be a "slow-start" period during the first 20,000 blocks (about 34 days) where the block reward linearly increases to 12.5 ZEC. This is designed to reduce the impact of a potential negative event like "a major bug" or "security vulnerability". As a result, the first blocks will reward extremely small amounts of ZEC, meaning the overall supply in the ecosystem will be limited as the block reward ramps up.

## Other cryptocurrencies

Currency	Current	Predicted_Min_April	Predicted_April	Predicted_Max_April	Predicted_%Increase
cardano	0.650498	2.5395051408	2.2197587359	2.8485788341	290.393996719%
komodo	6.77	17.7055426585	16.0469072138	19.3500816916	161.529433656%
zcash	524.34	954.664658081	724.8989365638	1182.8235561802	82.0697749706%
dash	846.16	1222.0459993226	1074.5223584474	1368.4846266407	44.4225677558%
digibyte	0.007443	0.0116271151	0.0101148491	0.0131283838	56.2154382049%
siacoin	0.048824	0.0687473841	0.0579186698	0.0794304032	40.8065379237%
verge	0.107126	0.1662080508	0.1439768704	0.1886341883	55.1519246455%
ripple	1.55	2.2132745398	1.9291817801	2.5293436776	42.7919057911%
ark	6.5	16.4221267816	14.9142365244	17.8989141312	152.648104332%
ethereum	1039.1	1518.0217683812	1342.7579827243	1691.1553866634	46.0900556617%
bitcoin-cash	1769.62	5546.7665850237	4965.5252331366	6125.6746119805	213.44393627%
neo	139.5	169.272651004	154.0349295836	186.1513197112	21.3424021534%
nem	1.1	1.4857408183	1.2562332415	1.7104908208	35.0673471162%
factom	51.18	51.4343971662	43.2890503528	59.9173641887	0.497063630682%
bitcoin	11607.4	19856.5778899532	18276.1588429383	21480.5939105304	71.0682658472%
zclassic	149.5	207.0124289335	179.0751379267	238.4815297644	38.4698521294%
hshare	0.061192	0.0729030703	0.0566691353	0.0896817119	19.1382375387%
reddcoin	0.014114	0.0168114103	0.0138463279	0.0197962539	19.1115931996%
kucoin-shares	9.28	32.9364534675	27.5954970555	38.1188521343	254.918679606%
electroneum	0.139106	0.2967928176	0.2624696543	0.3260800359	113.357308545%
monero	364.62	457.2913308464	405.9697631017	516.0298540145	25.4158660651%

iota	2.7	8.7819178992	7.7946842228	9.8117479197	225.25621849%
ethereum-classic	31.7	61.7559275665	54.4512614765	68.9200776823	94.8136516295%
smartcash	1.01	2.7256089998	2.3657305065	3.066263506	169.862277208%
raiblocks	17.26	47.6517903915	42.4065980428	53.2128007976	176.082215478%
bytecoin	0.007443	0.020719557	0.0171266255	0.0242190073	178.376421322%
stellar	0.506232	0.6673377799	0.5575035915	0.7584114172	31.8244954744%
decred	103.84	125.1230384059	113.1086209462	137.9978958319	20.4959923015%
vechain	5.92	21.0252623313	18.4229309963	23.3745465253	255.156458299%
waves	8.78	17.042272775	15.1549866552	18.9189629381	94.1033345669%
steem	4.77	4.6585107421	3.5774601564	5.766299905	-2.3373010038%
litecoin	192.96	319.9930236175	288.7330636857	352.1137265433	65.833863815%
qtum	39.19	132.8847847349	118.5033589301	147.6460975977	239.078297359%
pivx	9.4	13.5086761152	12.1482674525	14.9368747874	43.7093203745%
bitcoin-gold	217.95	407.302032451	312.8138121267	503.70349626	86.8786567795%
lisk	23.04	32.7144555392	29.6005931904	35.7091056487	41.9898243888%
dogecoin	0.007871	0.0108135686	0.0091116654	0.0124906226	37.3849395475%
bitshares	0.37946	0.5863715051	0.4714894911	0.7128713671	54.5278830693%
stratis	14.84	25.0601814785	21.8872974777	28.2574444138	68.8691474295%
byteball-bytes	818.06	1639.795443918	1343.8161530203	1945.3608891286	100.449287817%