


## Exercise 20 - Live trading trial

March 17, 2018

### 1. Moving funds into existing Poloniex account

Purchased 50GBP of LTC on Coinbase, 25GBP for trading and 25GBP for reserve (LTC for fast & low fees) - 0.22025526 LTC available to trade.

Bought Litecoin


  
**+0.44025526 LTC**  
@ £113.57 per LTC

Reference code	NKB25D9N
Payment Method	Visa debit *****7504
Coinbase Fee	£1.99
Subtotal	£50.00
Total	£51.99

3/17/2018 2:19 PM

COMPLETED

Sent Litecoin

  
**-0.44039526 LTC**  
≈ \$69.41


To	LLgnFaqh6pKQFB23Fg8KVbM53gTHkZvy6b
Price per coin	\$157.61 USD
Confirmations	0
Fee	0.00014000 LTC
Transaction	<a href="#">View transaction</a>

3/17/2018 2:21 PM

PENDING

Litecoin Address

LLgnFaqh6pKQFB23Fg8KVbM53gTHkZvy6b



RECEIVED	SENT	BALANCE
0.0 LTC	0.0 LTC	0.44025526 LTC
(0.44025526 LTC UNCONFIRMED)		

Subscribe

Advanced Details

1 Transaction (1 unconfirmed)

1 Input Consumed

0.5 LTC from  
LcUPUrzykeNhATd4ZWnVZzJMD3BKHpypqf (output)

2 Outputs Created

0.44025526 LTC to  
LLgnFaqh6pKQFB23Fg8KVbM53gTHkZvy6b (spent)

0.05952174 LTC

Value Transacted: 0.499777 LTC

BlockCypher Public Metadata (beta)

Add Metadata


API Docs

This page has no public metadata yet.

Figure 1 - bought LTC

Figure 2 - sent LTC to Polo

Figure 3 - Blockchain process of transaction

 Litecoin Transaction

ff1bd598b02f0b6eeee16d3857a6cd9fecce0eb3692bb6cf9b8bd3c98b6a374

AMOUNT TRANSACTED	FEES	RECEIVED	CONFIRMATIONS
0.499777 LTC	0.000223 LTC	🕒 14 minutes ago	🔒 6+

Advanced Details

Details

1 Input Consumed

0.5 LTC from  
LcUPUrzykeNhATd4ZWnVZzJMD3BKHpypqf (output)

2 Outputs Created

0.44025526 LTC to  
LLgnFaqh6pKQFB23Fg8KVbM53gTHkZvy6b (spent)

0.05952174 LTC

BlockCypher Public Metadata (beta)

Add Metadata

API Docs

This page has no public metadata yet.

Figure 4 - Transaction public blockchain information


DEPOSIT HISTORY

Export Complete Deposit History

Status (Confirmations)	Coin	Amount
<b>Pending (2 of 4)</b>	LTC	0.44025526
2018-03-17 14:21:39		
Address: LLgnFaqh6pKQFB23Fg8KVbM53gTHkZvy6b		
Txid: ff1bd598b02f0b6eeee16d3857a6cd9fefcce0eb3692bb6cf9b8bd3c98b6a374		

Figure 5 - Poloniex address receiving LTC (waiting for confirmation from nodes)

DEPOSIT HISTORY

Export Complete Deposit History 

Status (Confirmations)	Coin	Amount
<div>Complete</div> <div>2018-03-17 14:21:39</div> <div>Address: LLgnFaqh6pKQFB23Fg8KVbM53gTHkZvy6b</div> <div>Txid: ff1bd598b02f0b6eeee16d3857a6cd9fefcce0eb3692bb6cf9b8bd3c98b6a374</div>	LTC	0.44025526

Figure 6 - Poloniex confirmed LTC received

YOUR TRADE HISTORY

Export: Complete Trade History Complete Lending History Complete Borrowing History

Trade Analysis

Coin... / BTC Analyze Clear

To analyze your trades, enter a Coin name, select a Market, and click Analyze.

Tip: Click a coin name in the table below to quickly analyze that coin.

Show Buys & Sells From All Dates

Market	Type	Category	Price/Share	Amount	Fee	Total	Transaction Date
LTC/USDT	Sell	Exchange	156.68894256	0.44025526	0.17245783 USDT (0.25%)	68.81067331 USDT	2018-03-17 14:37:51

Figure 7 - Poloniex exchange of LTC into USDT

USDT	Tether USD	68.81067332	0.00000000	0.00857312	<a href="#">Deposit</a> <a href="#">Withdraw</a>
You have <u>68.81067332</u> USDT available for withdrawal. <b>0.00000000</b> USDT is held <u>on orders</u> .					
Address:		<input type="text"/>			
Amount:		<input type="text"/>			
Transaction Fee:		-25.00000000			
Total:		0.00000000 USDT			
<b>IMPORTANT: Do not send Tether USD anywhere unless you are certain the destination supports Omni transactions. If it does not, you could permanently lose access to your coins.</b>					
					<a href="#">Withdraw</a>

Figure 8 - USDT total (half available for live trading, half reserve)

USDT	Tether USD	34.81067365	0.00000000	0.00434297	<a href="#">Deposit</a> <a href="#">Withdraw</a>
You have <u>34.81067365</u> USDT available for withdrawal. <u>0.00000000</u> USDT is held <u>on orders</u> .					
Address:		<input type="text"/>			
Amount:		<input type="text"/>			
Transaction Fee:		-25.00000000			
Total:		0.00000000 USDT			
<b>IMPORTANT: Do not send Tether USD anywhere unless you are certain the destination supports Omni transactions. If it does not, you could permanently lose access to your coins.</b>					
					<a href="#">Withdraw</a>

Figure 9 - USDT tradable

## 2. Live Trading Test Run

### Step 1. Update data

After running first part of `LiveAlgorithm.R`, `NewData` object created:

	T0	T1	T2	T3	T4	T5	T6	T7	BTC1	BTC2	BTC3
1	400.92	397.67	406.97	416.09	418.97	421.94	421.22	420.87	7981.10	8027.00	8177.52
2	397.67	406.97	416.09	418.97	421.94	421.22	420.87	422.00	8027.00	8177.52	8246.66
3	406.97	416.09	418.97	421.94	421.22	420.87	422.00	423.69	8177.52	8246.66	8268.71
4	416.09	418.97	421.94	421.22	420.87	422.00	423.69	423.00	8246.66	8268.71	8305.00
5	418.97	421.94	421.22	420.87	422.00	423.69	423.00	423.00	8268.71	8305.00	8187.50
6	421.94	421.22	420.87	422.00	423.69	423.00	423.00	419.97	8305.00	8187.50	8193.44
7	421.22	420.87	422.00	423.69	423.00	423.00	419.97	421.58	8187.50	8193.44	8155.00
8	420.87	422.00	423.69	423.00	423.00	419.97	421.58	425.00	8193.44	8155.00	8198.32
9	422.00	423.69	423.00	423.00	419.97	421.58	425.00	425.00	8155.00	8198.32	8200.00
10	423.69	423.00	423.00	419.97	421.58	425.00	425.00	427.39	8198.32	8200.00	8216.00

Console

Terminal

```
> BData <- getOHLCV(.symbol1 = "USDT", .symbol2 = "BTC", .period = 1800, .start = 31536000, .end = 999999999)
2018-03-18 16:18:46 BTCUSDT Poloniex OHLCV data downloaded.

> tail(.ohlcv$BTCUSDT, 10)
      date      high      low      open      close      volume quoteVolume weightedAverage
53890 2018-03-18 11:30:00 7815.097 7622.509 7630.798 7781.149 1076437.1    139.09450      7738.891
53891 2018-03-18 12:00:00 7802.868 7709.820 7766.349 7748.231  454523.7     58.64865      7749.942
53892 2018-03-18 12:30:00 7817.809 7684.121 7748.231 7719.015  674833.2     87.02353      7754.605
53893 2018-03-18 13:00:00 7719.015 7545.297 7700.000 7545.297  876076.7    114.60645      7644.219
53894 2018-03-18 13:30:00 7638.503 7535.886 7545.297 7594.000 1140388.5    150.56263      7574.180
53895 2018-03-18 14:00:00 7598.933 7360.000 7594.000 7391.000 2620496.3    352.40893      7435.953
53896 2018-03-18 14:30:00 7501.722 7321.000 7400.849 7476.390 1955694.8    263.03603      7435.083
53897 2018-03-18 15:00:00 7488.511 7382.032 7476.390 7400.000 1291696.2    173.99241      7423.865
53898 2018-03-18 15:30:00 7448.750 7336.342 7400.000 7371.084 2458006.6    332.44173      7393.797
53899 2018-03-18 16:00:00 7383.914 7326.000 7371.084 7377.768  503884.5     68.53091      7352.660
```

Figure 10 - Updated data for Live Trading (17/03/18 @ 14h00)

### Step 2. Acquire prediction

After running second part of `LiveAlgorithm.R`, the prediction and confidence can be extracted:

Prediction: BUY or SELL

Confidence: 0-100%

### Step 3. Exchange executed on Poloniex

Test run strategy: exchanged fixed amount of USDT/DASH - 1.01USDT or 0.003 DASH

## Test and Fail Results

Time	14:30	15:00	15:30	16:00	16:30	17:00
Trade number	0 (test)	1 (test)	2 (test)		1 (fail)	2 (fail)
Prediction	SELL	BUY	BUY		BUY	
Confidence	51.1%	55.2%	50.7%		50.1%	
Outcome	✓	X	X			

### Trade 0 (test)

Market	Type	Category	Price/Share	Amount	Fee	Total	Transaction Date
DASH/USDT	Sell	Exchange	355.00000000	0.00300000	0.00266250 USDT (0.25%)	1.06233750 USDT	2018-03-18 14:26:07

Final price at 14:30 - 353.00

### Trade 1 (test)

Market	Type	Category	Price/Share	Amount	Fee	Total	Transaction Date
DASH/USDT	Buy	Exchange	354.99999999	0.00284507	0.00000711 DASH (0.25%)	1.00999984 USDT	2018-03-18 14:44:38

Final price at 15:00 - 354.97747625

But (see problem 1)

### Trade 2 (test)

Market	Type	Category	Price/Share	Amount	Fee	Total	Transaction Date
DASH/USDT	Buy	Exchange	356.23225213	0.00283522	0.00000709 DASH (0.25%)	1.00999680 USDT	2018-03-18 15:10:30

Final price at 15:30 - 350.00000000

### Trade 1 (fail)

Market	Type	Category	Price/Share	Amount	Fee	Total	Transaction Date
DASH/USDT	Buy	Exchange	348.87633909	0.00289500	0.00000724 DASH (0.25%)	1.00999700 USDT	2018-03-18 16:02:39

Final price at 16:30 -

### Trade 2 (fail)

## Live Trade Results

Time	17:30	18:00	18:30	19:00	19:30	20:00	20:30	21:00	21:30
Trade number	1	2	3	4	5	6	7	8	9
Prediction	BUY	BUY	SELL	SELL	SELL	BUY	BUY	SELL	SELL
Confidence	50.6%	61.8%	57.7%	60.3%	60.2%	53.6%	55.1%	51.2%	50.2%
Outcome	✓	✓	X	✓	✓	X	✓	✓	X

### Trade 1

Market	Type	Category	Price/Share	Amount	Fee	Total	Transaction Date
DASH/USDT	Buy	Exchange	342.00000017	0.00295321	0.00000738 DASH (0.25%)	1.00999782 USDT	2018-03-18 17:02:15

Final price at 17:30 - 343.70550011 USD

### Trade 2 (order placed delay)

Market	Type	Category	Price/Share	Amount	Fee	Total	Transaction Date
DASH/USDT	Buy	Exchange	343.70550011	0.00293856	0.00000735 DASH (0.25%)	1.00999923 USDT	2018-03-18 17:32:39

Final price at 18:00 - 353.90000054 USD

### Trade 3

Market	Type	Category	Price/Share	Amount	Fee	Total	Transaction Date
DASH/USDT	Sell	Exchange	353.90000054	0.00300000	0.00265425 USDT (0.25%)	1.05904575 USDT	2018-03-18 18:01:33

Final price at 18:30 - 357.46004700 USD

### Trade 4 (forgot to pull data before)

Market	Type	Category	Price/Share	Amount	Fee	Total	Transaction Date
DASH/USDT	Sell	Exchange	357.46004700	0.00300000	0.00268095 USDT (0.25%)	1.06969919 USDT	2018-03-18 18:33:54

Final price at 19:00 - 353.89410133 USD

### Trade 5

Market	Type	Category	Price/Share	Amount	Fee	Total	Transaction Date
DASH/USDT	Sell	Exchange	353.89410133	0.00300000	0.00265421 USDT (0.25%)	1.05902809 USDT	2018-03-18 19:01:47

Final price at 19:30 - 351.61006900 USD

### Trade 6

Market	Type	Category	Price/Share	Amount	Fee	Total	Transaction Date
DASH/USDT	Buy	Exchange	351.61006900	0.00300000	0.00000750 DASH (0.25%)	1.05483020 USDT	2018-03-18 19:31:53

Final price at 20:00 - 351.02000000 USD

### Trade 7

Market	Type	Category	Price/Share	Amount	Fee	Total	Transaction Date
DASH/USDT	Buy	Exchange	351.02000000	0.00300000	0.00000750 DASH (0.25%)	1.05306000 USDT	2018-03-18 20:02:02

Final price at 20:30 - 351.59000030

### Trade 8

Market	Type	Category	Price/Share	Amount	Fee	Total	Transaction Date
DASH/USDT	Sell	Exchange	351.59000030	0.00300000	0.00263693 USDT (0.25%)	1.05213308 USDT	2018-03-18 20:31:28

Final price at 21:00 - 356.11190027

### Trade 9

Market	Type	Category	Price/Share	Amount	Fee	Total	Transaction Date
DASH/USDT	Sell	Exchange	356.11190027	0.00300000	0.00267084 USDT (0.25%)	1.06566486 USDT	2018-03-18 21:01:53

Final price at 21:30 - 374.48733258

### Total

4 BUYs, 5 SELLs

Overall: 6 correct, 3 wrong → ~66.67%)

Confidence of 55% → 75%

Confidence of 60% → 100%

### Problem 1:



Buying delay was clearly a problem in trade 1 (test)

Data delays in trade (fail)

API time to respond