

# Al based cryptocurrency trading

### TRADING DATA

Al based cryptocurrency trading recommender service

SINCE AUGUST

Bitstamp mKraken & KuCoin

**BITFINEX** 

**EXCHANGES** coinbase # GEMINI Huobi





**DATASET GROWS EACH HOUR** 

**POLONIEX** 

### **MACHINE LEARNING MODELS**

# Bollinger bands

close, rsi, bandwidth, percent-b, cv, x, chop and roc 100+

different trained and tested models 1 hour

data aggregation

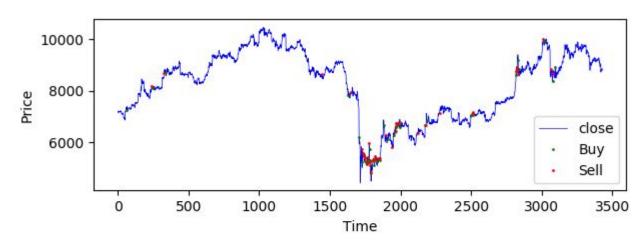


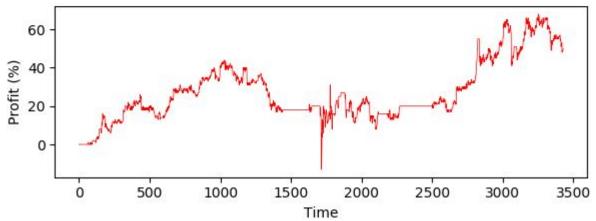
30+ FEATURES ML MODEL FINE-TUNING

PREPROCESSED TRADING DATA

5 CRYPTO-CURRENCIES

### BTC 1st Jan 2020 - 25 May





#### 

Trading fee: 0.15%

Hours in observed period: 3018

BTC return for observed period: 51.60%

Closed trades: 42

Risk free rate (2.5% annual): 0.91

Average gain per closed trade: 0.97%

Standard deviation of portfolio excess return: 5.63

Sharpe ratio (with 2.5% annual risk free): 9.01

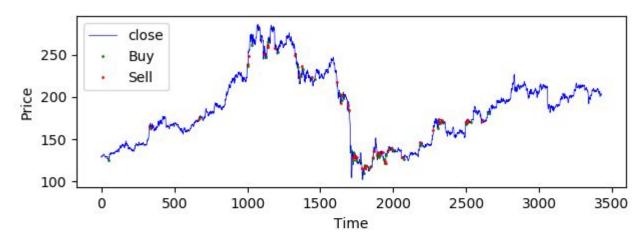
Downside standard deviation: 2.92

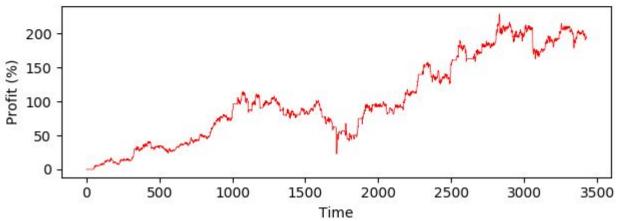
Sortino ratio (with 2.5% annual risk free): 17.39

Maximum drawdown: -40.28%

Max drawdown lasted for: 685 hours

### ETH 1st Jan 2020 - 25 May





#### 

Trading fee: 0.15%

Hours in observed period: 2557

ETH return for observed period: 163.80%

Closed trades: 47

Risk free rate (2.5% annual): 0.77

Average gain per closed trade: 1.95%

Standard deviation of portfolio excess return: 6.60

Sharpe ratio (with 2.5% annual risk free): 24.70

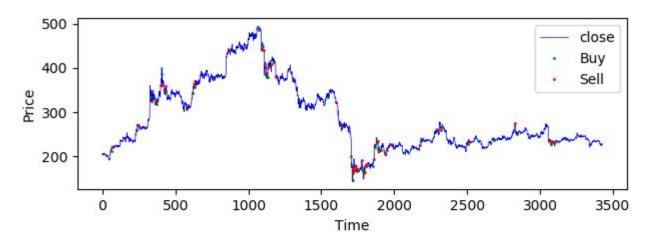
Downside standard deviation: 2.22

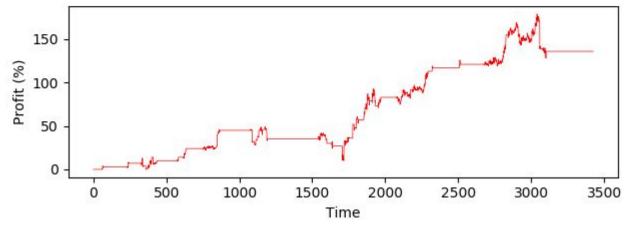
Sortino ratio (with 2.5% annual risk free): 73.38

Maximum drawdown: -42.46%

Max drawdown lasted for: 643 hours

### **BCH 1st Jan 2020 - 25 May**





Trading fee: 0.15%

Hours in observed period: 3043

BCH return for observed period: 136.52%

Closed trades: 45

Risk free rate (2.5% annual): 0.91

Average gain per closed trade: 1.86%

Standard deviation of portfolio excess return: 5.91

Sharpe ratio (with 2.5% annual risk free): 22.94

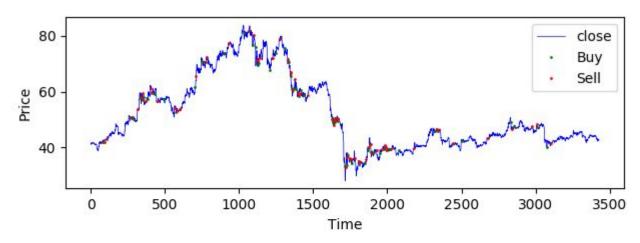
Downside standard deviation: 2.85

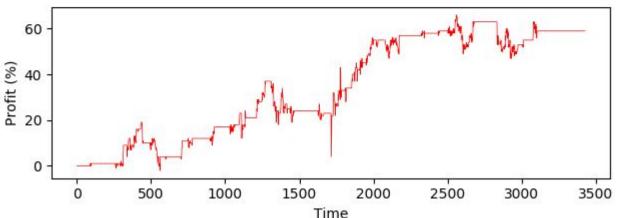
Sortino ratio (with 2.5% annual risk free): 47.63

Maximum drawdown: -18.31%

Max drawdown lasted for: 61 hours

## LTC 1st Jan 2020 - 25 May





#### 

Trading fee: 0.15%

Hours in observed period: 3027

LTC return for observed period: 59.73%

Closed trades: 65

Risk free rate (2.5% annual): 0.91

Average gain per closed trade: 0.82%

Standard deviation of portfolio excess return: 3.16

Sharpe ratio (with 2.5% annual risk free): 18.63

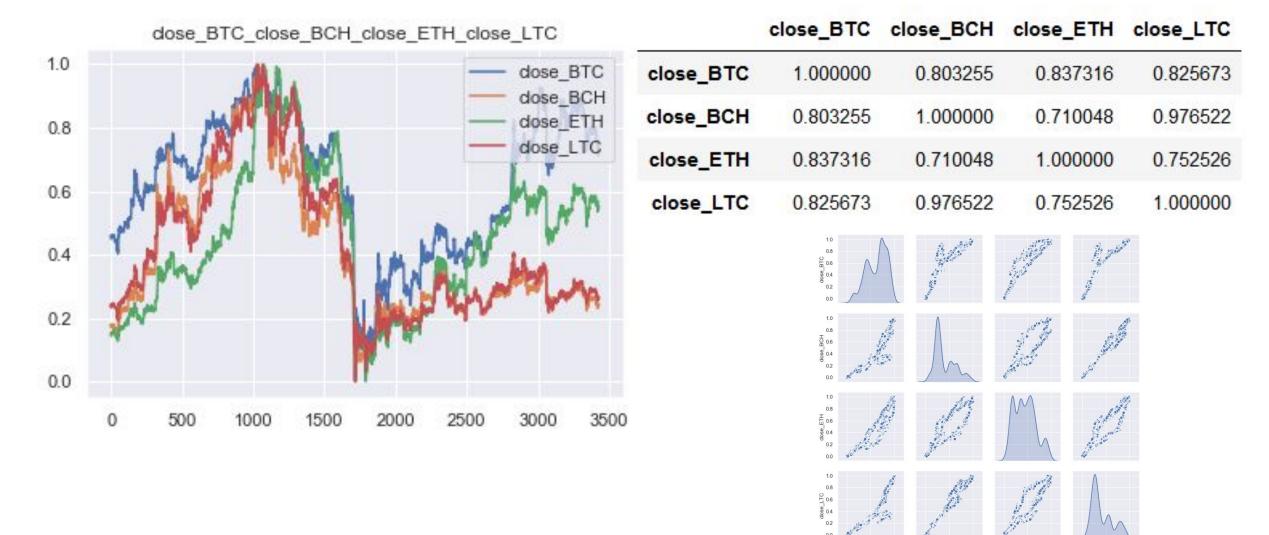
Downside standard deviation: 1.75

Sortino ratio (with 2.5% annual risk free): 33.65

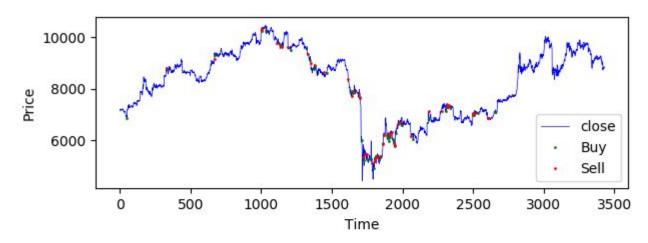
Maximum drawdown: -23.61%

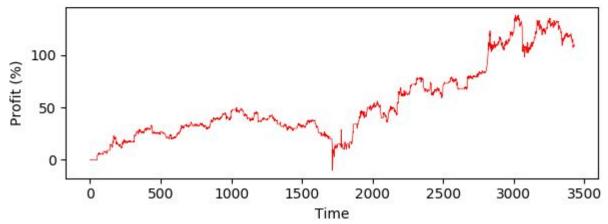
Max drawdown lasted for: 446 hours

### Correlation between crypto (same period)



# BTC trading with ETH signals





#### 

Trading fee: 0.15%

Hours in observed period: 2557

BTC return for observed period: 68.91% (compared to

51.6%)

BTC return with last open trade: 110.9%

Closed trades: 47

Risk free rate (2.5% annual): 0.77

Average gain per closed trade: 1.11%

Standard deviation of portfolio excess return: 5.20

Sharpe ratio (with 2.5% annual risk free): 13.12

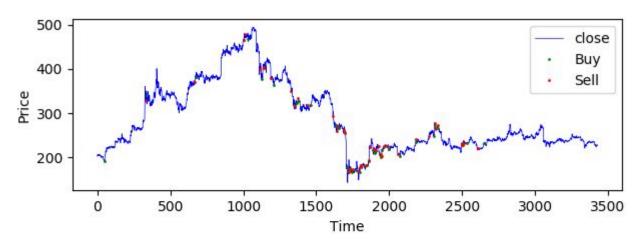
Downside standard deviation: 2.20

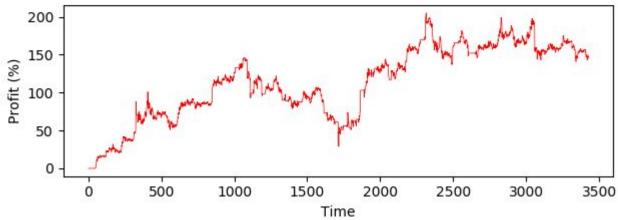
Sortino ratio (with 2.5% annual risk free): 30.91

Maximum drawdown: -40.57%

Max drawdown lasted for: 678 hours

## **BCH trading with ETH signals**





#### 

Trading fee: 0.15%

Hours in observed period: 2557

BCH return for observed period: 152.49% (compared

to 136.52%)

Closed trades: 47

Risk free rate (2.5% annual): 0.77

Average gain per closed trade: 1.64%

Standard deviation of portfolio excess return: 8.75

Sharpe ratio (with 2.5% annual risk free): 17.34

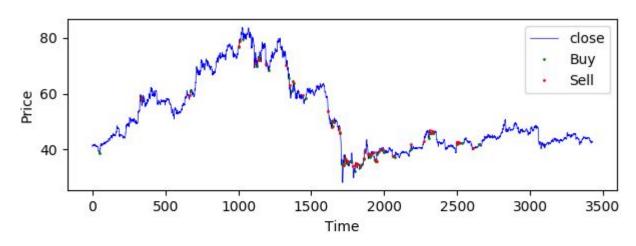
Downside standard deviation: 3.68

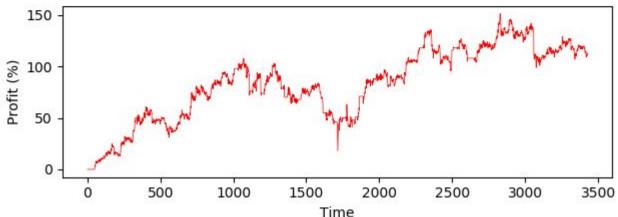
Sortino ratio (with 2.5% annual risk free): 41.19

Maximum drawdown: -47.59%

Max drawdown lasted for: 650 hours

### LTC trading with ETH signals





#### 

Trading fee: 0.15%

Hours in observed period: 2557

LTC return for observed period: 108.12% (compared

to 59.73%)

Closed trades: 47

Risk free rate (2.5% annual): 0.77

Average gain per closed trade: 1.40%

Standard deviation of portfolio excess return: 7.11

Sharpe ratio (with 2.5% annual risk free): 15.11

Downside standard deviation: 2.78

Sortino ratio (with 2.5% annual risk free): 38.60

Maximum drawdown: -42.97%

Max drawdown lasted for: 645 hours

### How can you test the solution?

- We can provide trading signals for the period of up to 3 months:
  - Deliver signals via a web hook
- We have been storing trading signals on DASH blockchain for certain period of time (using OP RETURN function to store time stamped data on the blockchain)
  - Data cannot be altered
  - Timestamped signals
  - Upon signed MNDA we can provide access to the signals stored on the blockchain

### How can You put AI trading tool to good use?

- BrightHabitat provides trading signals, You handle order execution:
  - Revenue Share Agreement 20% of performance fee charged on a quarterly basis

### OR

- You set up account on CoinBase Pro and BrightHabitat automatically executes orders based on trading signals (CoinBase Pro bots available)
  - " 2% & 20%" proceeds
    - 2% of AUM (annualized)
    - 20% of performance fee charged on a quarterly basis

### Minimum requirements

- Trading with initial portfolio of 200k USD for period of 6 months
- In case BrightHabitat is executing orders on CoinBase Pro:
  - You decide on the portfolio distribution (select with which assets you want to trade and % of funds dedicated for each asset/portfolio)
  - Create portfolio sub/accounts
  - Fund portfolio sub/accounts based on decided distribution
  - Create API keys for each portfolio with view and trade permissions (no withdraw permission) and share it with us
  - We set up ML models, bots and start order execution in less than 24 hours.





- BrightHabitat with ChainRider one of the winners of BlockStart EU H2020 projects as DLT provider
- We are looking for SME adopters of the solution for demo/pilot
- An open call for SMEs open until 30<sup>th</sup> of June
- If selected, you receive 3000 EUR grant for the demo
- Requirements:
  - SME from EU or associate countries
  - Sign declaration of commitment to increase chance of getting selected with ChainRider for pilot phase

### **BitMEX Futures Trading Strategy**

1/1/20 → 5/24/20 Backtesting (Minimized Slippage, Fees Inc.)

Signals Timeframe	<b>BitMEX Products</b>
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BTCUSD Buy / SellSTART1-1-2020XBTUSDPerpetual BTC FuturesETHUSD Buy / SellEND5-24-2020ETHUSDPerpetual ETH Futures

#### **Strategy**

A | Sell-to-open BTC and ETH perpetual futures on SELL signals Sell-to-o

**B** | Buy-to-close BTC and ETH perpetual futures on BUY signals

**C** | Maintain long exposure to BTC in between BUY<>SELL

**D** | Generate income from funding paid to SHORTS by LONGS *generally* 

Sell-to-open enters the position Buy-to-close exits the position



### Results /optimized

### 2xETHUSD - Trades

LONG	(n=46)	SHORT (n=46)	<b>TOTAL</b> (n=92)	Start
roi	44.21%	roi 231.8%	roi 378.5%	\$100,000
mean	0.912%	mean 2.980%	mean 1.946%	, ,
std +/-	4.795%	std +/- 8.897%	std +/- 7.221%	Finish
mdn	0.247%	mdn 2.788%	mdn 1.231%	\$517,083.18
		funding \$18,962,29		, ,

#### 3xETHUSD - <u>Trades</u>

<b>LONG</b> roi	(n=46) 44.21%	<b>SHORT (n=46)</b> roi 443.3%	<b>TOTAL (n=92)</b> roi 683.5%	<b>Start</b> \$100,000
	0.912% 4.795% 0.247%	mean 4.471% std +/- 13.34% mdn 4.182% funding \$40,993.41	mean 2.691% std +/- 10.18% mdn 1.416%	<b>Finish</b> \$879,926.01

# Results /optimized

#### 2x XBTUSDxETH -**Trades**

		SHORT (n=46)	<b>TOTAL</b> (n=92)	Start
LONG	(n=46)	roi 148.4%	roi 258.2%	\$100,000.00
roi	44.21%	mean 2.217%	mean 1.565%	<b>+</b> ,
mean	0.912%	std +/- 7.125%	std +/- 6.108%	Finish
std +/-	4.795%	mdn 1.455%	mdn 0.929%	\$345,420.85
mdn	0.247%	funding -\$6,940.69		, , , , , , , , , , , , , , , , , , , ,

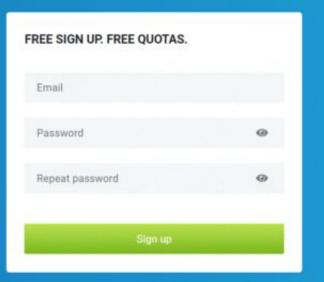
#### 3x XBTUSDxETH - Trades

LONG	(n=46)	SHORT (n=46)	<b>TOTAL</b> (n=92)	Start
roi	44.21%	roi 265.4%	roi 426.9%	\$100,000
mean	0.912%	mean 3.326%	mean 2.119%	Finials
std +/-	4.795%	std +/- 10.68%	std +/- 8.371%	<b>Finish</b> \$498,787.76
mdn	0.247%	mdn 2.183%	mdn 1.113%	
		funding -\$14 069 40		

CHAINRIDER

# Harvest the full potential of the blockchain

ChainRider offers an ecosystem of tools and services built around public and private blockchain which help you prototype and build proprietary applications on the blockchain in a fast and simple manner.



We are dedicated to deliver powerful tools and services to support the