

Dear Crypto community,

Over the last year our team has been developing a predictive model that exploits the inefficiencies within the various crypto currency markets. One section of our operation explores how Technical Analysis indicators and historical price movements can be used to teach a learning algorithm to produce 'buy' or 'sell' signals. It finds patterns otherwise missed by traders using manual technical analysis and over time it learns from incorrect predictions by adding weights to its various parameters.

There are various different routes we can take with this project, but ultimately we want to collaborate with existing trading platforms / projects / mining pools . Before I get into the various applications we have been looking at please see some statistics from our model below:

When trading 3 coins at the same time, with shared random initial parameters (meaning it builds one model for all 3 coins then connects each model via a multitasking algorithm) it made \$30,000 at one point and ended with \$16,000. This suggests it could learn additional information by trading other coins.

On another simulation we tested with around 30 coins over a 3 month period, however many of these coins had little data, the results were as followed:

Start capital: \$5,000

TA trader: \$12,706

Buy and Hold: \$-731.79

Random \$-1,145

Buy and hold and random are included to compare our method to more traditional basslines.

Although this has, up to this date, been a year long project, it is still in its infancy, there is a large area for improvement that we plan to make within our trading system. Namely if we look at the first example, a method of intervention should be developed where the algo trades less when a down trend within the market has been established. We are also experimenting with deep neural networks.

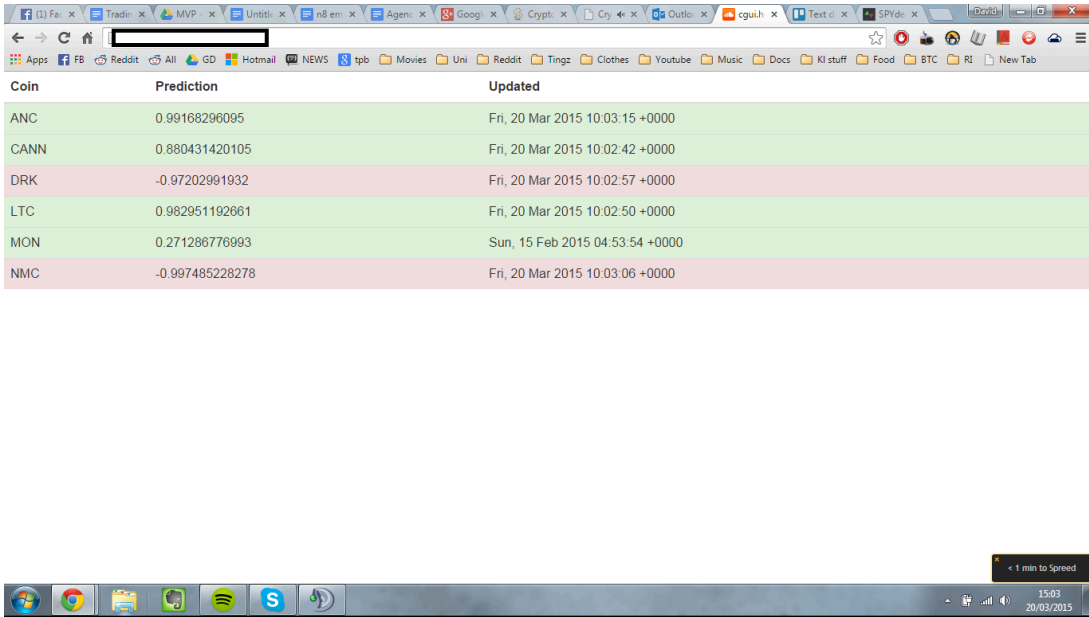
At this stage in development we see co-operation between a trader and the algorithm to increases the profitability. By intervening, a human could spot market structure that the algo doesn't and/or spot developments within the fundamentals of such an asset.

Now, the avenues we are thinking of taking this project down:

Investment fund. This is we believe the most profitable but requires a high level of sustainability and incorporates the most risk. Again the model currently might work best with some level of human intervention. So this relationship will need to be established and has yet to be experimented with.

Mining pools. The predictions could be used to mine currencies that are predicted to have positive price movements. This mitigates problems such a slippage and not being able to take a position on the close for current trading sessions. It could be a similar system to cleverhash where they offer an additional x% of mining returns in comparison to other pools. However much experimentation must be done in order to determine the 'lag' in hash rate to price movements ie how much will the hash rate reflect the price of any one coin.

Selling the predictions. The predictions are sold at a premium or as part of existing paid for service such as [spydercrusher](#). We imagine our predictions would be very desirable to new/inexperienced traders as it produces a simple signal between -1 and 1 (-1 sell, 1 buy). To demonstrate this we have modified our model to work with live data and can be seen below



The screenshot shows a web browser window with a table of cryptocurrency predictions. The table has three columns: 'Coin', 'Prediction', and 'Updated'. The rows are color-coded: green for positive predictions and red for negative predictions. The 'Updated' column shows the date and time of the last update for each coin.

Coin	Prediction	Updated
ANC	0.99168296095	Fri, 20 Mar 2015 10:03:15 +0000
CANN	0.880431420105	Fri, 20 Mar 2015 10:02:42 +0000
DRK	-0.97202991932	Fri, 20 Mar 2015 10:02:57 +0000
LTC	0.982951192661	Fri, 20 Mar 2015 10:02:50 +0000
MON	0.271286776993	Sun, 15 Feb 2015 04:53:54 +0000
NMC	-0.997485228278	Fri, 20 Mar 2015 10:03:06 +0000

Thank you for your time and we look forward to hearing from you.

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