Predictability of Cryptocurrency Markets Using Recursive Neural Networks

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# Introduction:

This research project commenced during a Computer Science Society Hackathon at The University of Exeter – looking at various interesting research perspectives in the analysis of cryptocurrencies.

The aim :

The aim is to investigate the extent to which Artificial Neural Network models can be used to predict the potential returns on cryptocurrencies.

Cryptocurrencies aren’t as predictable as other investments as they are a decentralised currency, so the value is determined on the money that people put into the system. As such, the media has a large influence over how many people will invest in the system creating a state of high volatility. This is why we believe using standard investment models to be insufficient in predicting the future value of said currencies, as such we have turned to machine learning (and more specifically, ANN) techniques.

Artificial Neural Networks are computing systems vaguely based on the biological neural networks that constitute the brain. As such they are made of a series of nodes, which have a binary output in that they can only continue along one of two pathways. By connecting large numbers of these neurons in layers we can build complex networks that can “learn”.