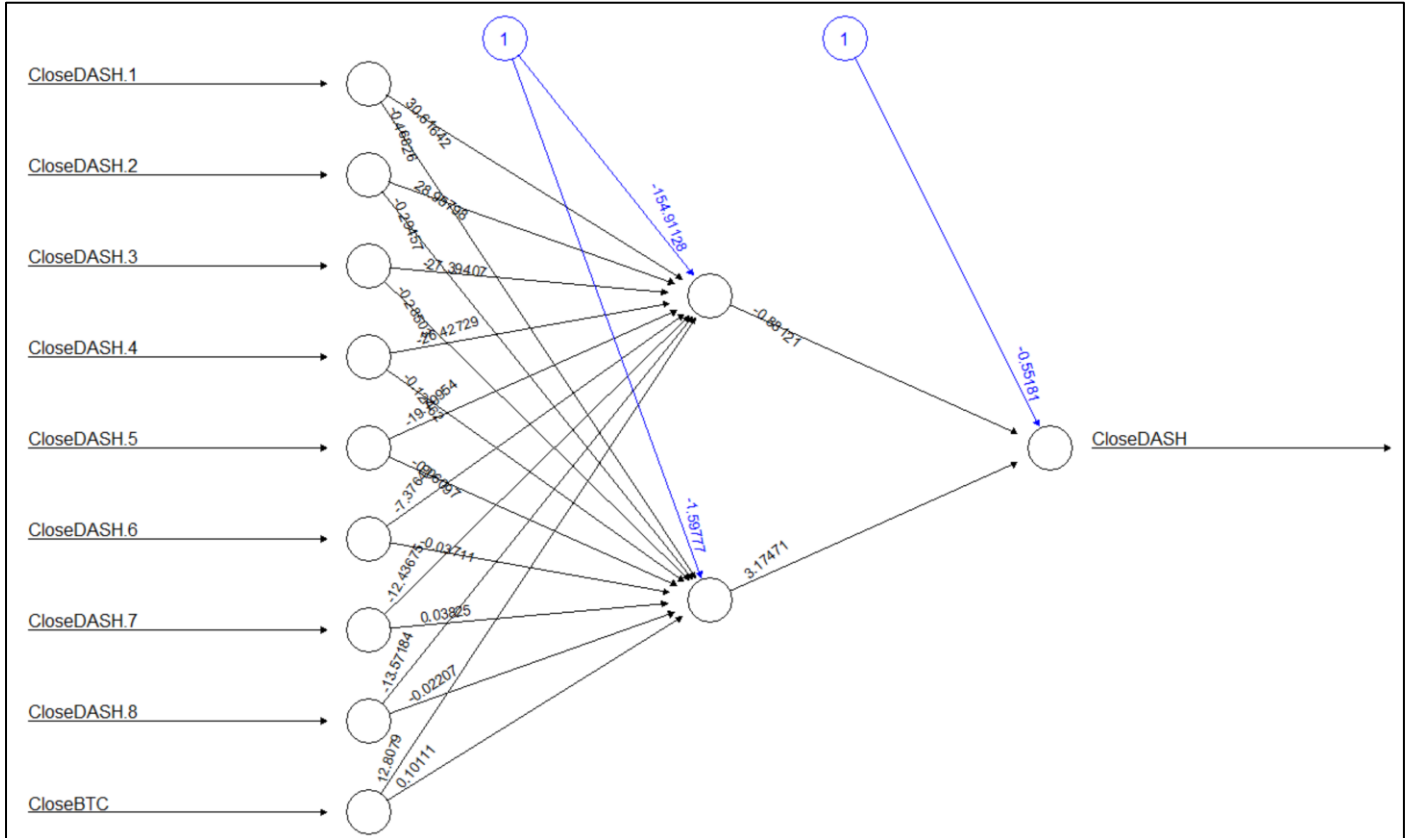# Exercise 14 - High Frequency Neural Network for price prediction (in R)
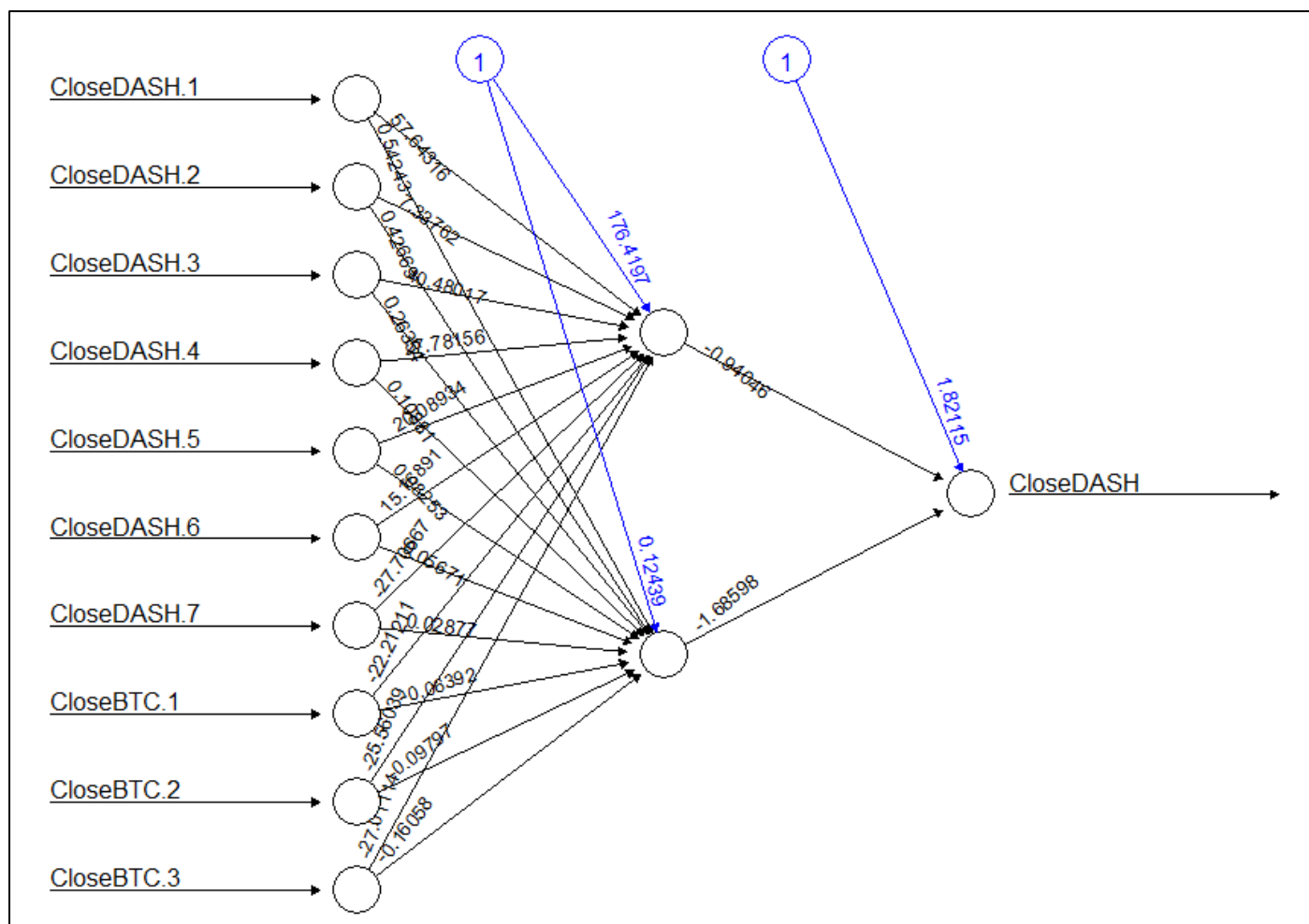
Feb 19, 2018

Various HFNN2 architectures explored:

Hidden Layers	1	1	1	1	1	1	1	1	1
Hidden Neurons	1	2	3	4	5	6	7	8	9
Predictability	0.566	0.562	0.557	-	-	-	-	-	-

Table 1 - HFNN2 predictions of DASH close price via delayed DASH & BTC exogenous input with varying hidden neurons (returns z-transform input data predicting binary output)

Hidden Layers	1	1	1	1	1	1	1	1	1
Hidden Neurons	1	2	3	4	5	6	7	8	9
Predictability	0.570	0.572	0.565	0.545	-	-	-	-	-

Table 2 - HFNN2 predictions of DASH close price via delayed DASH & BTC exogenous input with varying hidden neurons (returns z-transform input data predicting binary output)
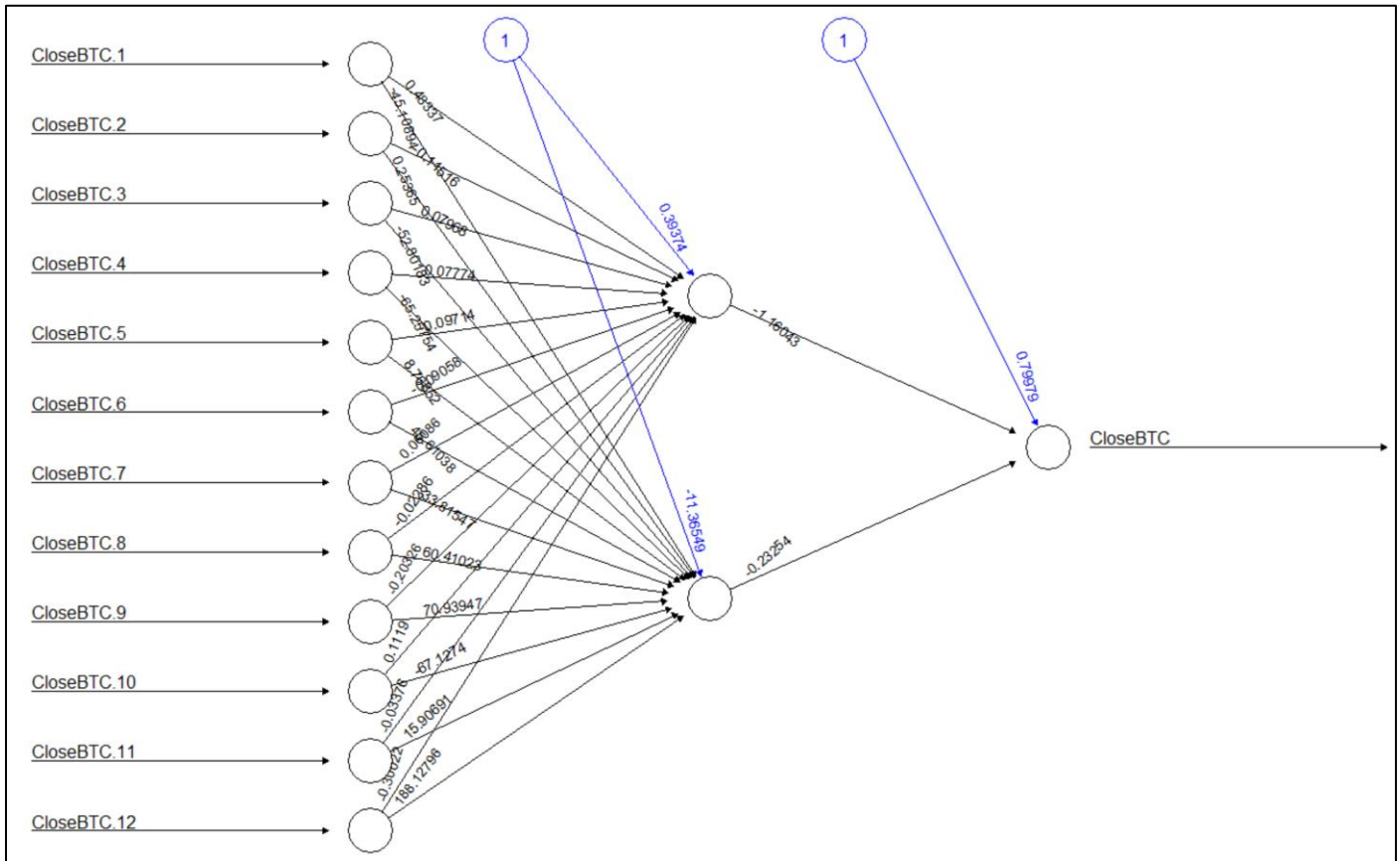
Additional investigations

High Frequency Neural Network (simple, unoptimized example):

Hidden Layers	1	1	1	1	1	1	1	1	1
Hidden Neurons	1	2	3	4	5	6	7	8	9
Predictability	0.510	0.505	0.504	NC	NC	NC	NC	NC	NC

Table 3 - HFNN2 predictions of BTC close price via 12 min-delayed BTC with varying hidden neurons
(returns z-transform input data predicting binary output)

Hidden Layers	1	1	1	1	1	1	1	1	1
Hidden Neurons	1	2	3	4	5	6	7	8	9
Predictability	0.501	0.503	0.505	NC	NC	NC	NC	NC	NC

Table 4 - HFNN2 predictions of BTC close price via 6 min-delayed BTC with varying hidden neurons
(returns z-transform input data predicting binary output)