# Algorithm analysis

## By: Carter Carlson

| | |
|---|---|
| Max drawdown over 30 days | 14% |
| Max upside over 30 days | 17% |
| Available capital allocated per trade | 10% |
| Leverage | 5x |
| Max gain/loss possible per trade | 2% |
| Max percent of portfolio locked in trades | 44.79% |
| Max # of trades open at one time | 6 |
| Average trade duration | 12 hours |
| Average time between trades | 21 hours |

# Risk vs. Reward based on Profit (TP)

| TP | Risk/Reward |
|---|---|
| 0 | -1:1 |
| 1 | .5:1 |
| 2 | 1:1 |

# Algorithm comparison

- A : Base algorithm
- B : Base algorithm with custom logic

| TP | A | B | Change |
|----|---------|---------|---------|
| 0 | 27.84% | 22.77% | -5.07% |
| 1 | 32.77% | 34.48% | 1.71% |
| 2 | 39.39% | 42.75% | 3.36% |

# Compounded results

- Timeframe: Feb 10, 2018 - Dec 31, 2019

| | Start Value (BTC) | End Value (BTC) | Net Profit | Trade Count | Avg. profit per trade (including fees) |
|---|---|---|---|---|---|
| A | 1 | 0.81 | -19% | 1801 | -0.011% |
| B | 1 | 2.06 | 106% | 786 | 0.262% |

# Conclusions

- Loss rate **reduced by** ~**5%** and win rate **improved by ~5%**
- Net profit **changed from -19% to +106%**
- Trade count **reduced over 50%** (1801 => 786)
- Average profit per trade **improved by a factor of over 20x** (-0.011% => 0.262%)