Investment strategy Based on “Classification of Intraday S&P500 returns with a Random Forest” by C. Lohrmann & P. Luukka

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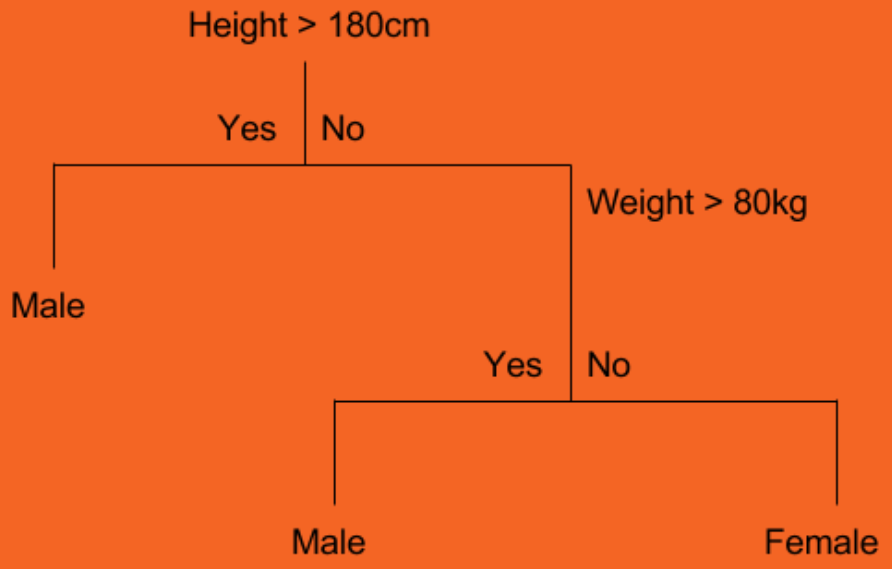
Decision trees and Random Forests



Market peculiarities

Bitcoin market is characterized by:

- ➔ High volatility
- ➔ Suspected autocorrelation of residuals
- ➔ Relatively low volumes

– Investment strategy

```
if signal >=5:
    buy()
elif signal <=2:
    sell()
else:
    hold()
```

Note:

6 -> Δprice ≥ 4%

5 -> 2% ≤ Δprice < 4%

4 -> 0% ≤ Δprice < 2%

3 -> -2% ≤ Δprice < 0%

2 -> -4% ≤ Δprice < -2%

1 -> Δprice ≤ -4%

– Hypothesis testing

To decide if buying

H_0: Signal is 5 or 6

H_1: Signal is not 5 or 6

To decide if selling

H_0: Signal is 1 or 2

H_1: Signal is not 1 or 2

Data sources

Technical fundamentals (*Blockchain.info*)	**Price (*Coinmarketcap.com*)**	**Attention (*Twitter.com*)**
Δ difficulty (on previous period)	Δ BTC Price (current day)	Δ queries (“Moon”, “Ballooning”, “HODL”, “Buy”, etc.)
Δ Hashing power	Δ dominance	Δ queries (“Sell”, “Sink”, etc.)
Δ Fees	Δ volumes (entire market)	
Δ tx per day		
Δ Mempool size		

Q&A