Capstone 2: Bitcoin price determination model

Objective.

The objective of this capstone project is to build a model that can determine what fundamental variables have the most impact on the bitcoin price, and that can forecast the bitcoin price within a 90%+ accuracy.

Context.

As bitcoin has increased in popularity, use, adoption and as an investment/store of value vehicle, a model that can explain and predict its price becomes more useful. Bitcoins market cap has just hit an all-time high above $320 billion.

Criteria for success.

Determine which set of fundamental variables best determines and predicts the price of bitcoin. These set of fundamental variables could be: monetary (scarcity, coin emission), user adoption (active addresses, etc), and resources expended (mining, difficulty).

Develop a predictive model that forecasts the bitcoin price with a 90%+ accuracy.

Scope of solution space.

Analyze the data to determine if there is a significant statistical relationship between the price of bitcoin and the set of fundamental variables, and which of these variables best explain and predict the bitcoin price.
The predictive model has 90%+ accuracy.

Key data sources.

Data source is coinmetrics.io, which is a company that collects and publishes information about bitcoin prices and bitcoin network statistics. Coinmetrics makes its data available as a .csv file. We can import this file to a pandas DataFrames via a URL.

Constraints within solution space.

The data that we have access to is Coinmetric's free community data. We will not have access to the subscription based data, which gives access to more network data.