

Design

An Investment Management firm has a cash that need to invested.

since they don't have experience investing in technology sector, they asked group of data scientist to make a model that predict what is the price of stock going to be based on many variables. NVIDIA stock was set to be studied

Yahoo finance website was used to get possible variables affecting the stock price and the variables was categorized (Hardware industry, Gaming company, Crypto currency, others)

Data

- Data was maintained through yahoo finance
- Included 10 features
- 1000 observations
- Study interval 2017-2021

NVIDIA
AMD
INTEL
Activision
EA
Oil
Gold
Nasdaq index
ETH
BTC

Algorithm

- 1-data scraping from yahoo finance
- 2-data cleaning (removing outliers, imputing null values)
- 3-EDA (looking for relation from the variables)
- 4-model building

Tools

- BeautifulSoup & selenium for web scraping
- Pandas and NumPy for data manipulation
- Sklearn for modeling
- Seaborn & matplotlib for data visualization