
NETFLIX & ~Correlation between Subscribers and Revenue~

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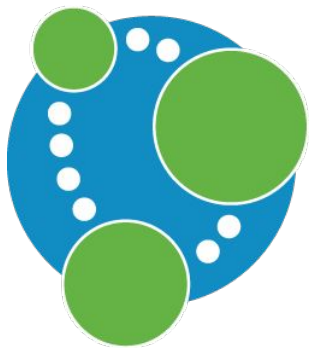
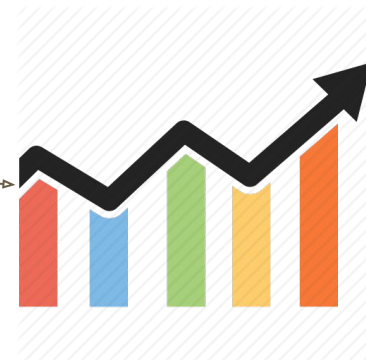
Problem



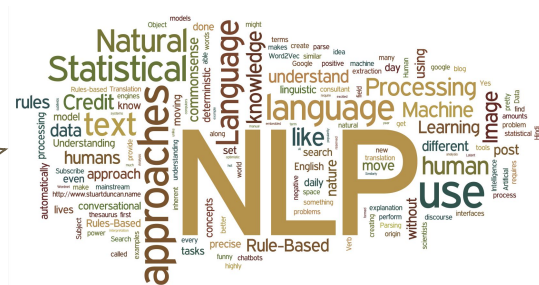
Credit Suisse is currently dependent on various financial publications/websites to procure data on the stock tickers they cover. This process is time consuming, which makes it difficult to identify key attributes of stocks and institutions.

How can we make this process less time consuming to make it easier to identify key financial attributes?

What is KSearch?

The Google logo is displayed in its standard multi-colored font.

neo4j



Skills and Tools

PyCharm (Python)



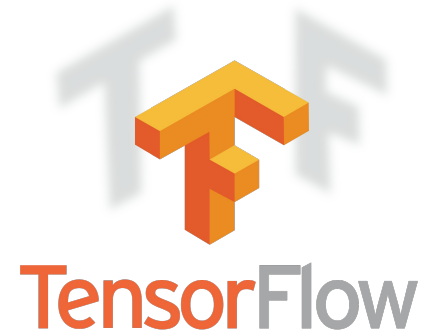
Eclipse (HTML, CSS, JavaScript)



Neo4j (Graphs)

XLRD (Porting Excel to Python)

Tensorflow (Machine Learning in Python)



SciPy (Correlation Calculation)

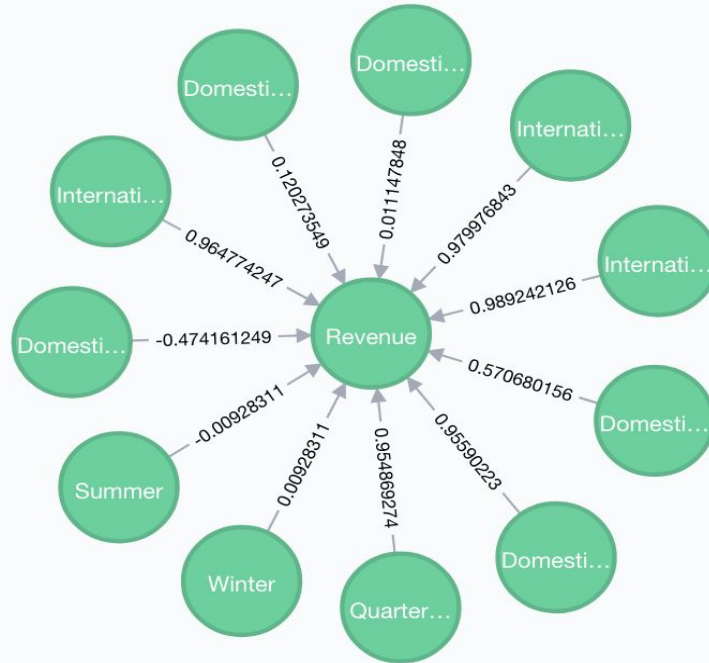


Data Cleaning

Out of all the Netflix data we focused on the all revenue in respect to

- Quarter(Time)
- Domestic Streaming Paid
- Domestic Streaming Free
- International Streaming Paid
- International Streaming Free
- Domestic DVD Free
- Domestic DVD Paid
- International Marketing
- Domestic Marketing
- Summer
- Winter

Knowledge Graph



Challenges

No previous knowledge of:

- Neo4j
- Natural Language processing
- Cleaning the data
- Time

Model

Multi-Linear Regression model

$$y = w_1x_1 + w_2x_2 + \dots + w_nx_n + b$$

Used Tensorflow where weights, bias stored as tf.Variables

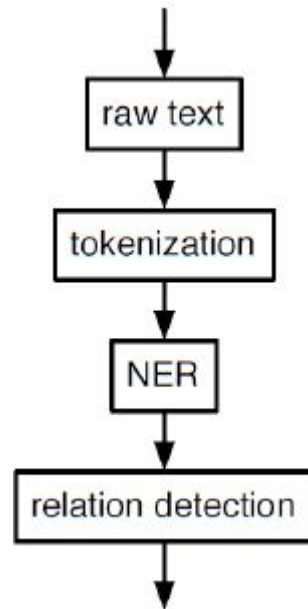
Adadelta Optimizer, initial learning rate of 1

80/20 Training/Testing split

Natural Language Processing

Tokenization

Creating a information dump where, depending on keywords, certain elements will be displayed to the user



What worked and what didn't?

Modeling:

- Multi-Linear Regression model difficult to evaluate and interpret

- Few data points with missing data

- Lack of Aggregate Knowledge about Neo4j

User Interface:

- Time constraints on NLP

Future Possibilities

For future use this model would be able to calculate the correlation between companies combined revenue or other data correlations.

For example:

- The partnership of T-Mobile and Netflix
 - T-Mobile paying for Netflix subscription
- The partnership of Spotify and Hulu

Demonstration

KSearch

What knowledge are you searching for today?

Search



Search Query: With a 10% in domestic, international, and total number of subscribers to Netflix, what is the revenue projection for Q2 2018?

Correlation between Netflix Subscribers and Revenue



Projection

