

# Google stock prediction

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# Why did we choose this topic?

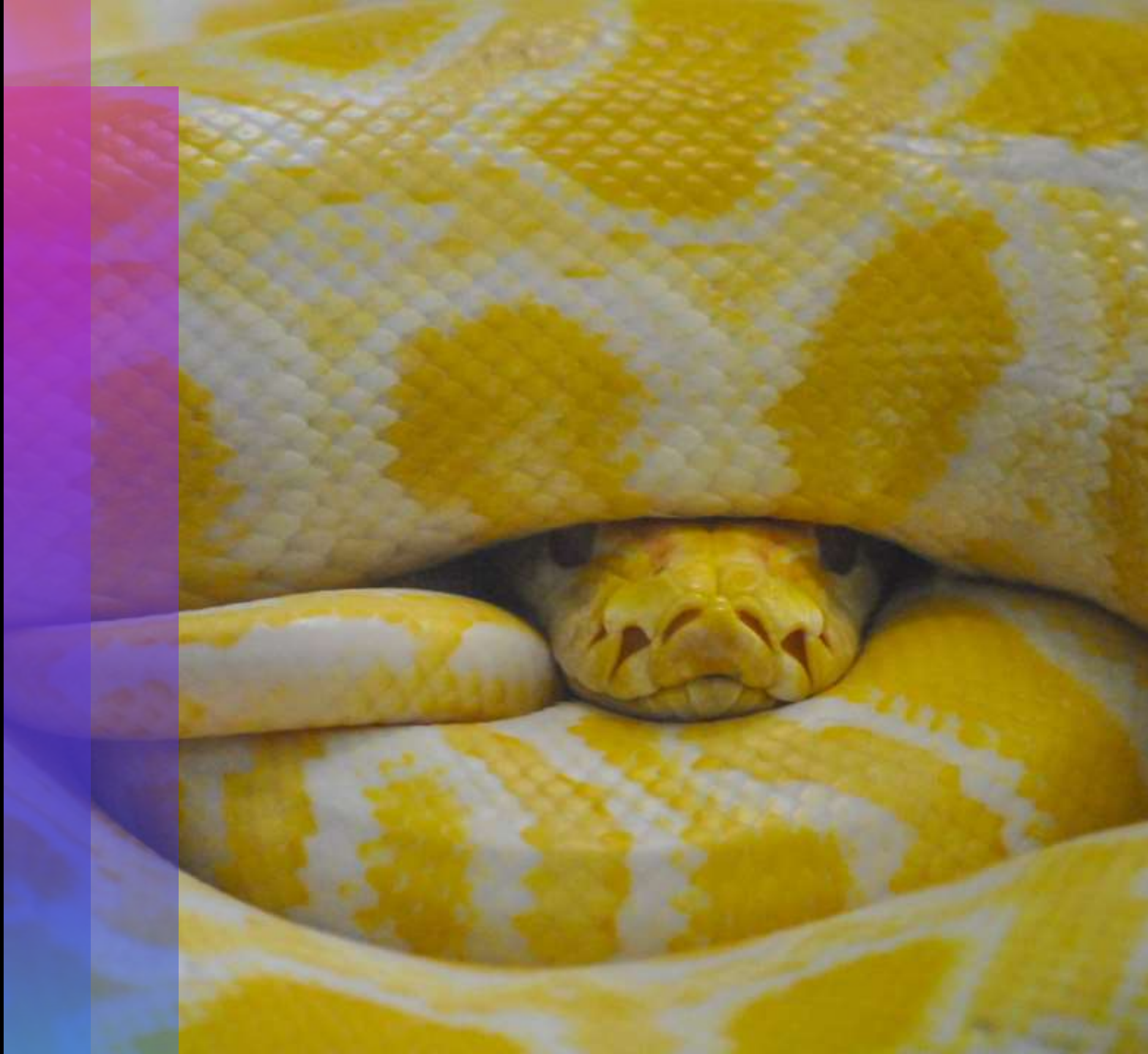
- Interested in investing
- Interested in Python

# General information

- Training data is from 2012 to 2016
- Testing data is from January 2017
- Our goal is to check how well can we predict the price changes in this period of time

# Python libraries which we use

- Pandas
- Numpy
- Matplotlib
- Keras
- Scikit-learn



# Milestones in the projects

- Prepare, check and filter the data (CSV files)
- Create the model using Keras library
- Train the model
- Check the results by plotting test data and predicted data on the same graph

# LSTM

Used for:

- Language Modeling
- Time Series Prediction
- Speech recognition
- Handwriting and writing recognition

# Some crucial plots from out project

```
In [11]: # Plotting the stock price from 2012 to 2016
plt.plot(df, color="black")
plt.xlabel("Time")
plt.ylabel("Stock price")
plt.title("Stock price from 2012 to 2016")
```

```
Out[11]: Text(0.5, 1.0, 'Stock price from 2012 to 2016')
```





```
In [62]: # Plot the actual prices and predicting prices od stock
plt.figure(figsize= (20,10))
plt.plot(test_data['Close'], 'red', label= 'Actual Price')
plt.plot(test_data['pred'], 'green', label= 'Predicted value')
plt.xlabel('date')
plt.ylabel('Prices')
plt.title('Real vs Predicted Prices')
plt.legend(loc='best', fontsize=20)
```

Out[62]: <matplotlib.legend.Legend at 0x15377e0cc40>

