

# FINANCIAL DATA ANALYSIS

## forex and crypto currency

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Software engineering  
Graduation project

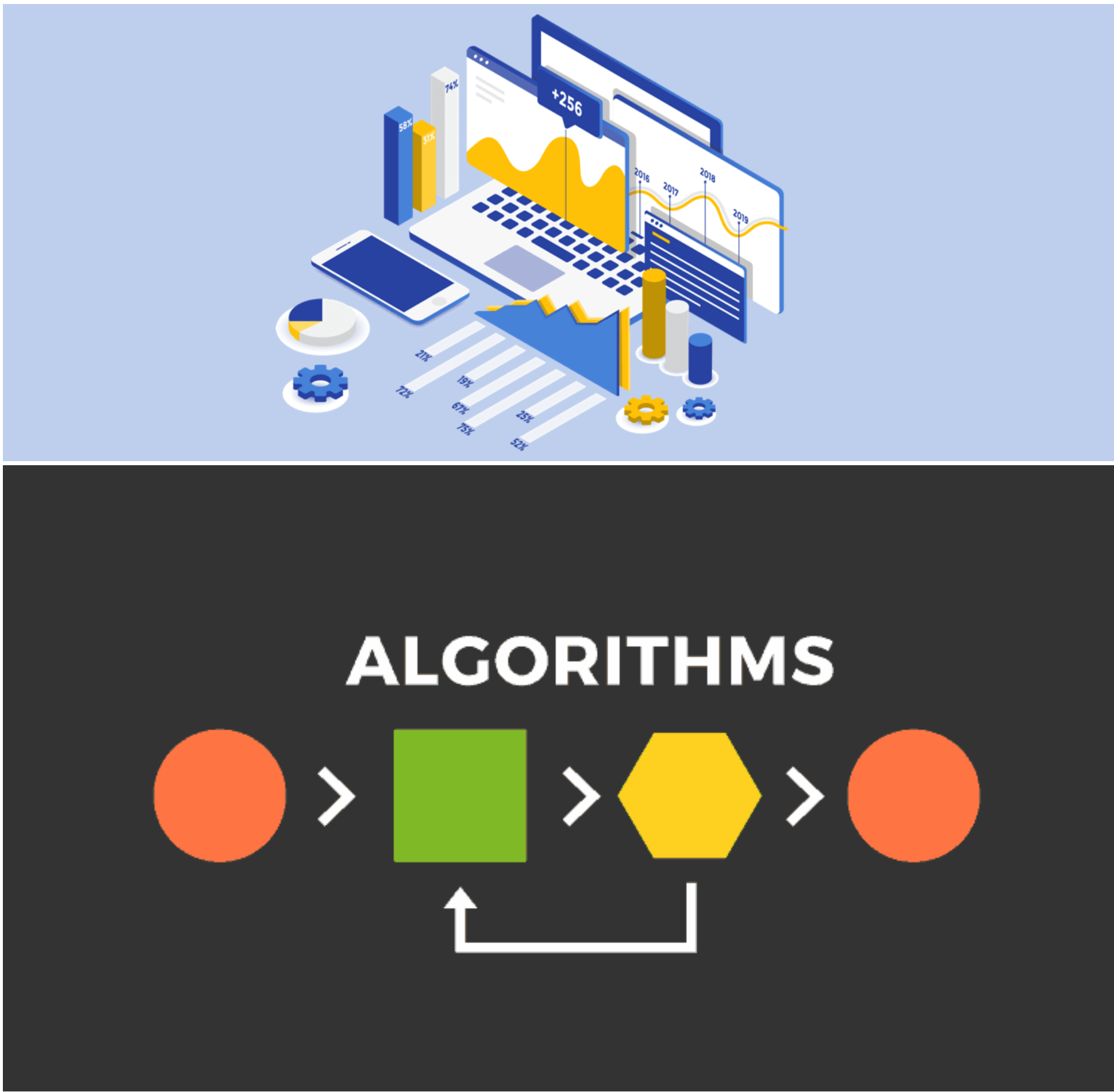
### 1 Project description

This is a machine learning-based project. The main goal is to analyze forex and cryptocurrency data to predict fluctuations in forex currency to make better investment decisions, analyze currencies and compare these currencies. The system will also be able to analyze fluctuations of cryptocurrency, in the same manner, the system will be based on financial signals algorithms



### 2 Tasks/work to be done

1. Programing forex and crypto data analysis algorithms
2. Developing rolling predictive algorithms that can be retrained to adapt to changes in the market
3. Analysing real time data for real time currency fluctuation updates
4. Designing and developing graphical presentation of the data
5. Creating a database that stores major currency changes and future predictions



### 3 Benefits and use of this project

This project will make forex and crypto data analysis and prediction easy.

Through machine learning strategies and methods, this project will be able to provide real-time information on currency changes helping investors and traders to make good investment decisions.

The main goal is to analyze forex and cryptocurrency data to predict fluctuations in forex currency to make better investment decisions, analyze currencies and compare these currencies. The system will also be able to analyze fluctuations of cryptocurrency in the same manner. The system will be based on financial signals algorithms and it will be able

to handle huge amounts of data so that it can produce more efficient results.

Due to its ability to process real-time data, it will be able to produce real-time predictions and currency fluctuations in well designed and easy to understand graphs so that anyone without any programming skills or less knowledge in forex, cryptocurrency, and finance will understand.

The system will be able to send an **email** containing forex and crypto information at any time and period, based on the users request. This allows the user to automate financial updates and choose whether he should receive the particular requested information on his

scheduled time.

Students who are studying finance or forex and cryptocurrency will be able to use this system to analyze and study currency changes with visually appealing graphs presented information, they will be able to see forex trend differences from historical data in the system to real-time data information.

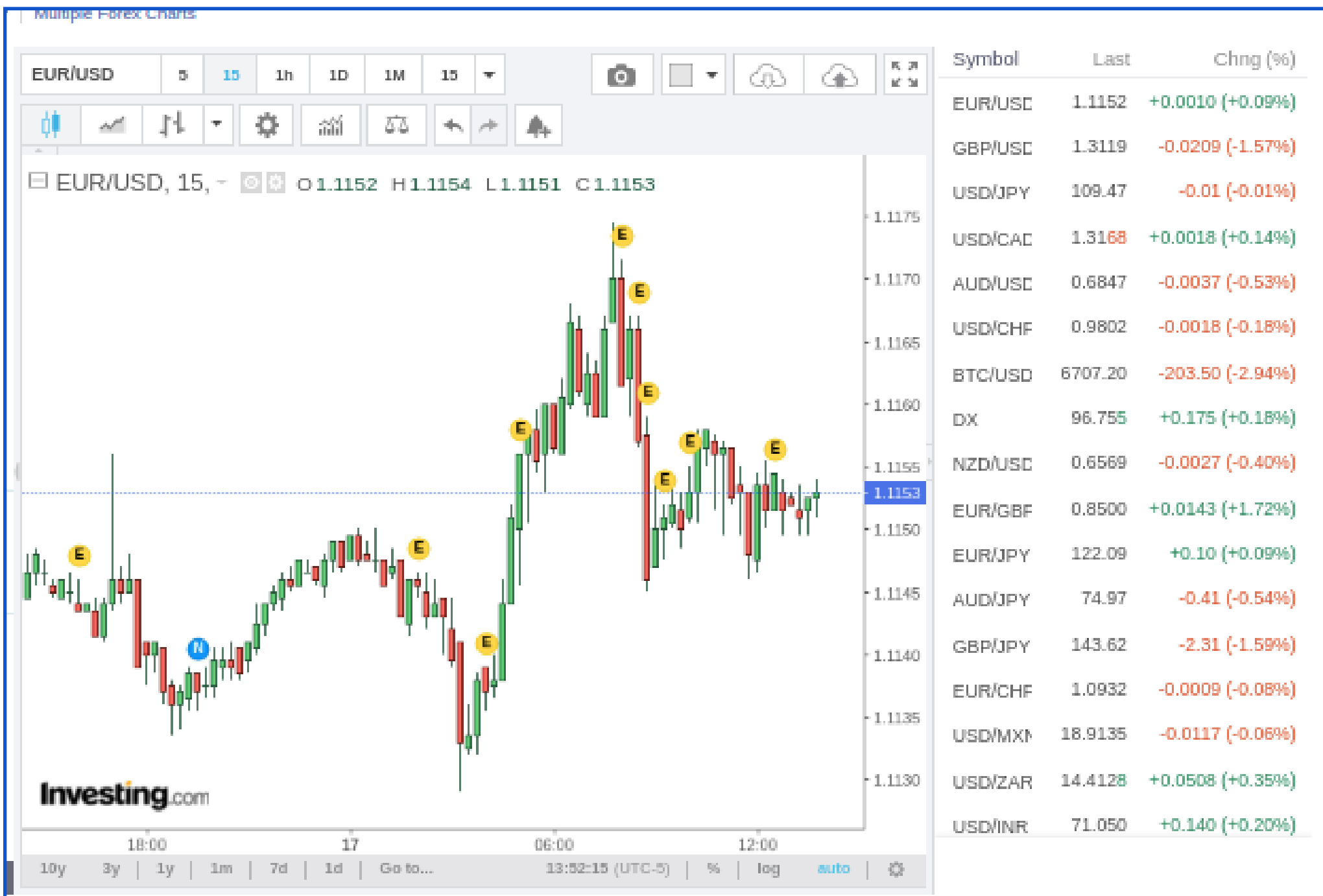
Companies and financial advisors can also use this analysis software to see current statistics and changes, and they will be able to predict the effects caused by these changes on their companies and investments.

### 4 End results / final product preview

Similar techniques that I will use on this project have been implemented before.

Companies like [investing.com](https://www.investing.com).

The website was developed with inbuilt forex and crypto predicting algorithms and it provides real-time visual information presentations.



The image on the right shows a sample of a forex predicting system from.

### Main development tools



### Python for Finance and Algorithmic Trading!

this project will be developed using python finance data analysis tools and libraries

The image below shows a sample of a cryptocurrency live analysis system.

Top Cryptocurrencies »					
Name	Symb...	Price (USD)	Market Cap	Vol (24H)	Chg (24H)
Bitcoin	BTC	6,732.7	\$122.46B	\$21.72B	-3.05%
Ethereum	ETH	127.40	\$13.97B	\$9.43B	-5.91%
XRP	XRP	0.19333	\$8.45B	\$1.87B	-7.08%
Tether	USDT	1.0056	\$4.14B	\$27.11B	+0.14%
Bitcoin Cash	BCH	184.78	\$3.38B	\$1.80B	-6.61%

Caption