

Analysis of Cryptocurrencies

Recruitment project for Riccardo Baudone
Starting Finance Club PoliMi – Quantitative Finance area

Idea

Analyze the price trends and volatility of a cryptocurrency portfolio in order to provide valuable insights.

Useful links:

- [Using Python for Data Analysis – Real Python](#)
 - [Where to Download Cryptocurrency Data? \[Free + No Email\] – Be on the Right Side of Change \(finxter.com\)](#)
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Deliverables:

- Obtain historical price data for several cryptocurrencies (e.g., Bitcoin, Ethereum, Litecoin).
- Calculate key metrics such as **daily returns, volatility, and correlations between the cryptocurrencies**.
- **Visualize price trends, return distributions, and correlations** through clear, well-labeled charts.
- Provide a **qualitative analysis** explaining significant phenomena (e.g., reasons for correlation patterns or the impact of recent events on market behavior).
- A **Monte Carlo simulation** for forecasting is not mandatory, but including it will be highly appreciated.

Output:

A clean, well-structured Jupyter notebook in Python. Ensure proper **data cleaning and preprocessing** is done to work with valid and accurate data before conducting the analysis.

How?

It's up to you to define the strategy on how to reach the output. During the call we will ask you to present your code, so make sure to have a **gist** prepared, and your code well organized.

We estimate the project will require 7 days of work.

You are expected to present a Jupyter notebook in english.

The next call will be on next Monday: 11 October, 6PM.