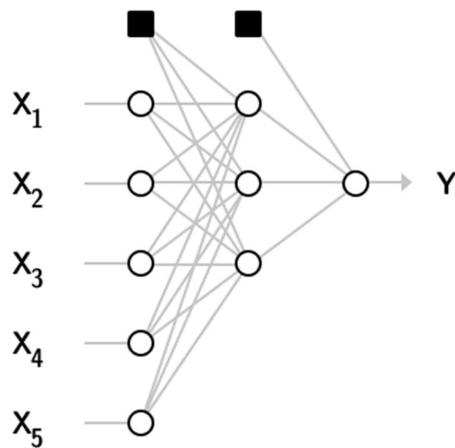# AI-based financial advisor

Basic concepts

The majority of investments fail because of incorrect risk management and insufficient control by the user.

To solve this problem, we use artificial intelligence, which learns on the data gathered from the users of the HyperQuant platform.

An example of a neural network module based on a three-layer perceptron.

Let's investigate how neural networks with direct connection are used in classification tasks. In any classification task, existing images of, for example, a financial condition, must be matched with specific classes. Classification and regression are the main areas of neural networks' practical implementation.

In structural image recognition, the objects are described by the way they are constructed from their components; in other words, they are described by their structure.

Networks with a direct connection are universal means of function approximation, which allows them to be used for solving classification tasks. Generally, neural networks are the most effective classification method, as they factually generate a large number of regression models. These models are used in solving classification tasks with statistical methods.

Classical rating systems

The rating system is the right choice for a financial platform. The rating expresses the instrument's potential over a certain time period, depending on the combination of qualitative and quantitative characteristics summarized in the final digital assessment. The rating can be calculated using different statistical methods. In the global financial system, ratings are made by the following independent rating agencies: Moody's, Standard and Poor's and Fitch Ratings. They are used to assess companies' creditworthiness. With the help of this rating, a potential owner of assets can understand whether it is worth buying and how reliable it is.

AI-based scoring

Artificial intelligence sets the rating for tokenized assets based on its own grading system. For a user, it can be presented in any comprehensive graphical way. Success is analysed on the basis of a wide range of criteria that exceed the simple risk-profitability assessment methods.
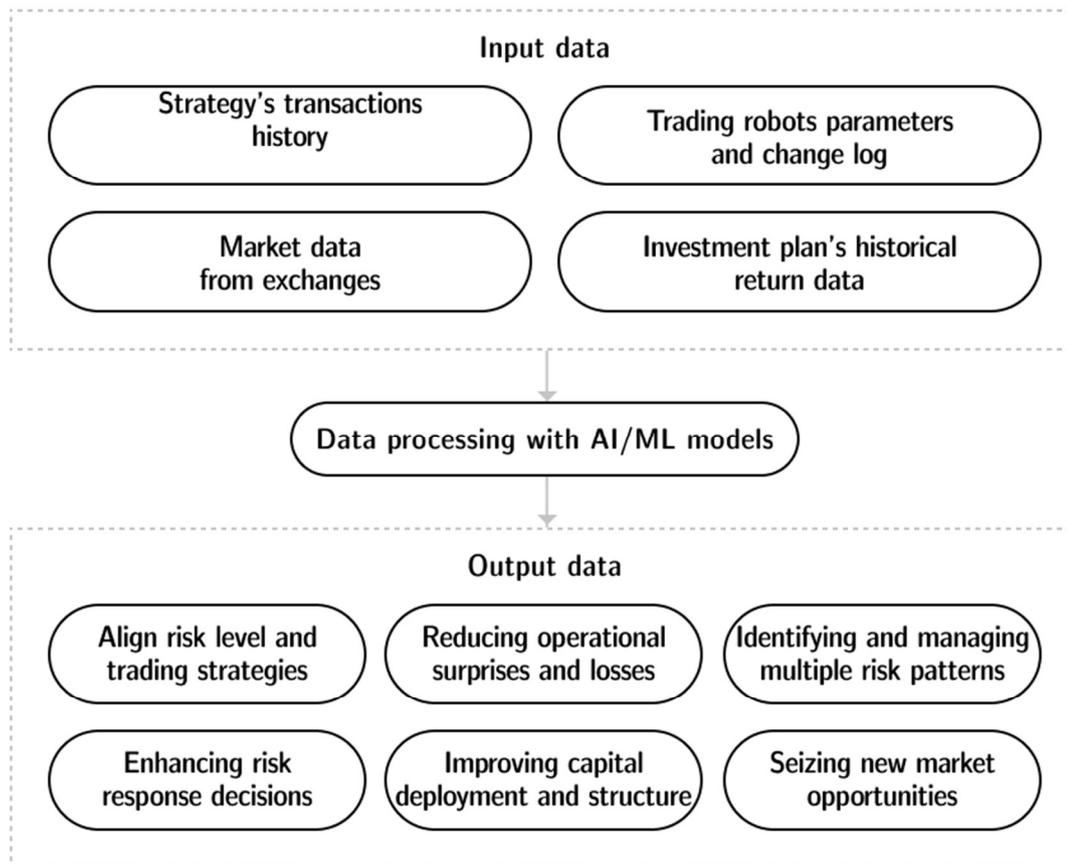
Neural network data processing

In cases when a rating decreases, HyperQuant's neural network has a built-in notification system. If a user performs risky actions that will or might lead to losses or the portfolio and asset diversification is not high enough, the system warns the user. Like a traffic light, it varies depending on the criticality of the situation. In the worst-case scenario, the system can block any access to a problematic item in order to prevent total financial collapse.