

# ARTIFICIAL INTELLIGENCE FOR CRYPTOCURRENCY PRICE PREDICTION

Crypto industry reached the peak of its popularity last year. There was a need to create useful tools for crypto analysis.

Our team led the efforts to develop an Al model for analyzing the cryptocurrency market. The solution combined natural language processing, sentiment analysis, and machine learning algorithms (LSTM) to predict prices for cryptocurrency. It crunches huge amounts of data and tells you which cryptocurrencies to invest in and attempts to maximize your returns.

The product brings value to:

- Private traders who want to receive hints from the system of artificial intelligence and a forecast on the trend of cryptocurrency prices;
- Professional companies that need to evaluate a comprehensive forecast for the whole real-time cryptocurrency market, portfolio management, investments, risk management, etc.

## **TECHNOLOGY**

Our team took charge of developing a Cryptocurrency price prediction solution based on LSTM models and sentiment analysis of Crypto forums and channels. The model provides the prediction of 5 type of time frames: 'hourly', 'daily', 'weekly', 'monthly', 'yearly' for every Cryptocurrency individually and displays them in a form of index.

The processes of price prediction model are recomputed constantly by Al Engine, potentially in a constant update loop. The model works in real time.

At present, the models work with a time step of one day, and make forecasts for 7 days ahead (forecast interval is adjustable); however, the solution can be applied to hourly input data and the forecast horizon set in hours.

The solution was deployed in Python, Jupyter Notebook. All documentation and the code remain proprietary.

### CONCLUSION

#### Result

The team created the fully ready working solution for Cryptocurrency price prediction within four weeks.

#### The main challenges were:

Research and selection of the optimal model architecture for Cryptocurrency price prediction within this solution.

Improving prediction quality, optimizing time and resources for model training and real-time prediction. In the results we observed a variance of accuracy between 40% - 73% accuracy of prediction.

To demonstrate the capabilities of this solution both to specialists in Al and to investment market traders as well as to those interested in investing in this project, our platform is available for member of our token stakers and NFT holders.

