

Cryptocurrency Trading Bot Colony

Summary

We would like to present an agent-based model of a colony of beings, whose life is dependent on their ability to virtually invest cryptocurrency based on very basic sentiment analysis of the Twitter cryptocurrency community.

Core System

We envision the core system to take a variety of inputs - the number of active agents, the health of the agents, and other factors - and create new agents accordingly.

Agent

The agent is our "trader bot". In terms of inputs, the agent monitors the prices of various cryptocurrencies, then performs very basic sentiment analysis on Twitter (such as matching keywords in Tweets) to gauge the community sentiment, and should accordingly reach a decision "invest" a virtual balance using predefined logic. When the bot's balance reaches 0, it dies, and this information is fed back to the core system so it can use this information to create more bots.

End Goal

Ultimately we would like to observe how different input words and other varying inputs influence the longevity and behaviour of the agents and the overall colony. We are considering visualising this system with a graphics library such as Pygame. We are quite interested to see how this may establish itself graphically as well.

