Hi Sunny –

This next project will be a relatively extensive one with a few different components. Each component is intended to work together, and I imagine we will develop each one subsequently.

End goal:

I would like to make a market maker bot to trade cryptocurrencies on the Kraken exchange. A quick primer on how market makers work is summarized here:

<https://www.investopedia.com/terms/m/marketmakerspread.asp>

I envision the project to create the market maker bot to encompassing three steps:

Step 1 – Data feed

* Create code that establishes API connection with Kraken to pull down real-time data on various cryptocurrency pairs (1-minute OHLC bars)
* Save the data to a local file that will serve as a repository for the historical data. The lookback period should probably be between 50-100 bars or so (of 1-minute data)
* Using talib, calculate one or a few technical indicators based on the data

The goal of Step 1 is to essentially create a real time data feed that the code logic in later steps can read and react to. Kraken seems to have a really good API suite, so I believe we have all the prerequisites to do so.

Step 2 – Market Maker bot

The create the bot itself, we will be able to use a ready-to-go software package named hummingbot.io

Their documentation seems quite good and the software is open source. They even have a few examples on their github page for how to get started if building a bot from source code. They have a UI and version that can be installed locally, however, In our case, we will need to build the bot from source as I am hoping to incorporate custom trading logic that will be created using the technical indicators in Step 1. Let’s revisit the exact trading logic and goals of the bot after Step 1 is complete, but I at least wanted to introduce hummingbot to you now for context on how Step 1 will eventually be used.

Documentation: <https://docs.hummingbot.io/>

Github examples: <https://github.com/CoinAlpha/hummingbot/tree/master/scripts>

I imagine the difficulty level will be the same or a little bit easier than learning expertise for Quantconnect.

API keys –

I went ahead and generated a pair of API keys for Kraken – I believe these should work for fetching data.

API key: tnSOviP098GB+RnJrveKB/AAxruMvuSn76PW5wtvkrrp9Yy3ptF1XzFE

Private key:

kfM624nMuyMOeNfbmNF7bfTgg1qwDwmLyn6L38jyywhFGsQsDnzifALo2OLIJSukJLpnpmMRcaNF5Bf8F4Zzog==