Project Proposal

Crypto Scanner

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HDCOMP

Software Development

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# Objectives

To develop an application that will connect with outside API’s, gather data on current cryptocurrency prices across multiple markets, and analyze prices in order to find discrepancies between markets, thus identifying arbitrage opportunities.

# Background

Cryptocurrency markets are still relatively young, volatile, and ‘inflexible’, therefore there are still opportunities for arbitrage (buying low at one market, and reselling at higher price on another – with minimal possible delay). Given that there are hundreds of markets out there, and each market can trade hundreds of different cryptocurrencies, there is a need for a specialized tool that can analyze prices in real time, and quickly identify potential arbitrage opportunities.

# Technical Details

Application will be written with JavaScript running in runtime environment provided by Node.js.

Libraries used:

Electron – facilitates creation of desktop applications, provides global shortcut handling out of the box

jQuery – used mostly for easier DOM manipulation tasks and simplified AJAX syntax

Electron-packager – packages all dependencies together, which means users don’t have to install any additional software in order to run the application.

# Evaluation

I will evaluate application in two ways. First, by using extensive unit testing to ensure that the codebase is sound to a satisfying degree. Second, by examining the output and recalculating it manually to ensure that the calculations are correct.

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