Frontend Developer Take-Home Challenge

The core features of our scientific IoT platform are the ability for researchers to easily record, organize, search, and share their instrument data. For this exercise, we ask that you implement a small new feature, something that enables users to better understand irregularities in their data.

User Story

As a researcher, I would like to identify sudden peaks in my continuous time series data, so that I can focus on important changes.

Concepts

A data point is considered a peak in a time series when the moving z-score is beyond a given threshold.

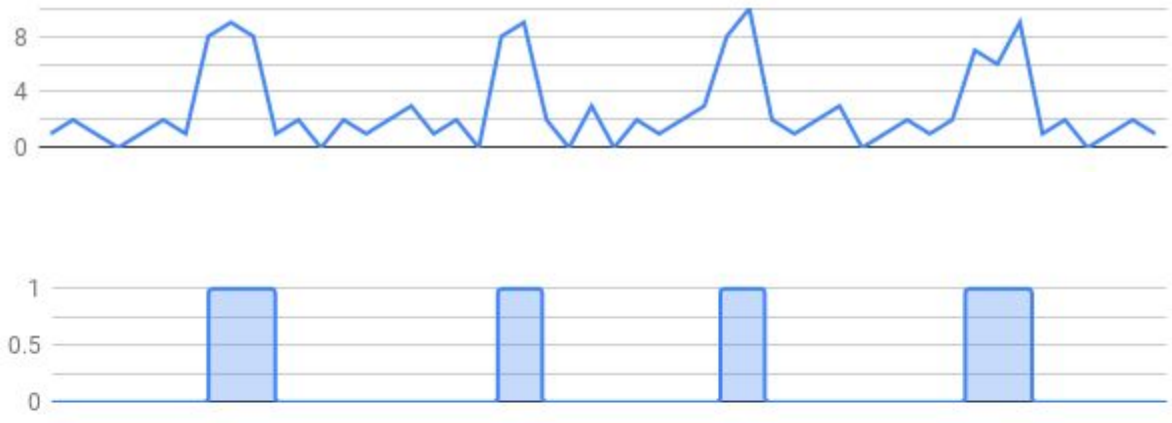
MVP Task

Please develop a simple React interface that satisfies the above user story.

A spreadsheet with sample data is provided with this task description. You do not need to implement the peak detection itself, but only a visualization of the result.

As an example, one ***potential*** implementation could be defined like this:

The upper chart shows the actual data, the lower one indicates the areas of interest.



Acceptance Criteria

This task is purposefully open-ended - you are free to come up with your own solution

that satisfies the provided user story.

Please code the solution in JavaScript using the React framework for any needed UI components. You are free to use any external libraries. You should assume that the data is coming from a REST interface, but you can mock the actual request to provide sample data.

Important:
We understand that not everyone can dedicate the same amount of time to this challenge - it is up to you to determine the amount of time you spend on the exercise. So that the reviewer understands how you are defining the scope of work, please clearly indicate your own “Definition of Done” for the task in a README file along with any other pertinent information.

Regardless of how far you take the solution towards completion, please assume you are writing production code because we will be reviewing as such.

Your solution should clearly communicate your development style, abilities, and approach to problem solving.

There is no time limit for the exercise, but once you receive the exercise please let us know when we should expect a response. Upon completion, please push your solution to GitHub and send us a link.

Let us know if you have any questions, and we look forward to seeing your approach.

Good Luck!