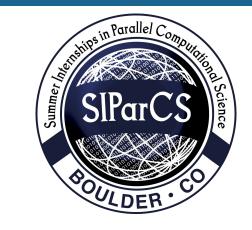
## AN INTERACTIVE WEBSITE TO SUPPORT THE CO-DESIGN PROCESS





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### MOTIVATION

# Making code evaluation more accessible to scientists.

- GPU based computing provides the potential to both reduce the time to scientific discovery and energy consumption for suitable science objectives.
- One of the major challenges scientists face is the slow adoption of GPU computing technologies because expert knowledge is required for the evaluation process.

#### GOAL

## Web Design: Learning React

- My goal during the internship was to build an interactive learning website aimed at simplifying the evaluation process of GPU computing.
- •The website is aimed towards enhancing scientific communication by bridging the knowledge gap between scientists and software engineers and making code evaluation more accessible to researchers and scientists.
- I utilized the React framework and web design principles to build the website.

#### RESULTS **Query Page** STUDENT EXERCISE 0 **Progress Bar Tool Tip: Users can** 1. Do you have a Makefile created for your code? ? hover over the help icon O Yes O No to get an explanation of 2. Do you have the ability to flexibly execute your the technical terms they code by other users? not be familiar with. O Yes O No **Query Box** 3. Is your code in a revision control system like Git? O Yes O No 4. Do you have a way to determine non-bit-for-bit answer changes from software bugs? • Yes • No **Navigation** Back Clear Next **Buttons** A Makefile is a script-like text file used to automate the compilation and building of software projects by defining rules for dependencies and actions needed to generate target files **Result Page Summary Page** How does the website work? The website is designed to assist the user Feedback tailored in evaluating whether their science to user's responses objective is well-suited for GPU-enabled computing. The assessment comprises four pages containing a series of questions. Upon completion, the summary page will provide tailored feedback based on the user's responses. If the science objective aligns favorably Based on your answers, it appears that there is still some work that needs to be done before with GPU-enabled computing, the you can start the process of GPU-enablement. In particular the following steps should be done Steps to take to feedback will include a set of steps the start GPU porting 2. Add the ability to flexibly execute the code by other users 3. Add your code into revision control system like Git 4. Develop a verification framework that allows the identification of non-bit-for-bit user can take to initiate the GPU porting process answer changes from software bugs process.

#### **ACKNOWLEDGMENTS**