CHALLENGE #15
UI-CFW-01

Computing Framework for Web-based Environmental Analysis

Meet the expectations of this US Node through the technology challenge described below

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GOALS

The recent advances in computing science and web technologies promise profound opportunities to eliminate the need for extensive resources on several tasks. This project aims to develop a computing framework for web-based environmental analyses, such as watershed delineation or flow routing. The framework will be powered by various web technologies (e.g., WebGL or WebGPU) according to the needs of the tasks. The goal is to build a reliable and fast platform that handles and combines different analyses with user-friendly interface.

DETAILS

The project will include reviewing the literature for candidate tasks, implementing algorithms for candidate tasks, designing a user-friendly interface and using various APIs for data sources and visualization.

SKILLS REQUIRED

WebGL; WebAssembly; JavaScrip; Parallel Programming.