User Interface Testing at Datava

Paid internships after Field Session will be offered to students that perform well. These often extend into the school year, and after graduation turn into full-time positions. Inquiries for paid internships/full-time positions are always welcome, even for students who do not work on this project.

Client

David Flammer, Datava.com, david@datava.com

Background

Datava develops enterprise level resource management and business intelligence tools in the cloud. Testing is an incredibly important part of developing software, especially when it comes to building something that will scale. User interfaces are the hardest to test, since it is difficult to program a test that simulates the user's behavior. That's what we want you to do in this project.

Project Goals and Requirements:

You will build a framework to record tests of the user interface of Datava's cloud-based system. There are some excellent tools to help with this, for example Cypress (https://www.cypress.io/). To do this, you will investigate, choose, learn, and implement a tool that will integrate user interface testing into Datava's deployment systems. We do not expect you to write a hundred, tests; the focus is on making the tool robust, and then writing a few tests to demonstrate its capabilities, which our developers can then use.

Suggested team size and location:

3-4 students. Work can be done from CSM campus or elsewhere (connecting to our remote dev environment) or at our offices in Westminster, CO.

Skills/Experience for CSM Students:

You will learn a lot about user interface testing, the tools involved, and building such tests.

- Testing tools: Cypress (https://www.cypress.io/), Selenium (https://www.selenium.dev/), or others that you find.
- NodeJS and NPM: typically on the server where deployments are performed, NodeJs and NPM are used for managing the test applications.
- Headless browsing: to correctly simulate a user interface in a server environment, often a "headless" browser is used.
- Javascript and HTML: The web runs the world, and our app is no different. To write a test for a Javascript/HTML driven app, you will need exposure to these.

Note: All intellectual property developed as part of this project will be owned by Datava, Inc.