WebSockets 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. Our application pushes and requests data from the server on every user action which means high performance and low latency are crucial for maintaining a good user experience. The method by which web applications synchronize their state with the remote server has evolved over the years. From simple whole page refreshes to AJAX which allows asynchronous, incremental updates at the request of the client. WebSockets are the latest improvement currently implemented by browsers and allow full duplex communication between the client & server as well as supporting long lived connections.

Project Goals and Requirements:

You will research and implement a WebSocket based API endpoint and create the necessary client JavaScript to utilize the WebSocket connection. Currently we use AJAX in various places that could benefit from WebSockets, so part of this project is allowing our existing AJAX request structure to operate over the WebSocket connection. You will work with our System Administrator(s) to install and configure any necessary server-side frameworks and tools.

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.

- Javascript: You will use this to build the client side of the WebSocket technology.
- PHP: This will be used for routing server-side communication over the WebSocket.

Basic knowledge of these languages or similar languages is crucial for web development.

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