**TensorFlow.js Internship Assignment**

**What is tensorFlow.js?**

**TensorFlow** is an open-source end-to-end platform for creating Machine Learning applications and was created by the Google Brain team. TensorFlow allows developers to create dataflow graphs, structures that describe how data moves through a [graph](https://www.infoworld.com/article/3263764/database/what-is-a-graph-database-a-better-way-to-store-connected-data.html), or a series of processing nodes. Each node in the graph represents a mathematical operation, and each connection or edge between nodes is a multidimensional data array or tensor.

Tensorflow.js is an open-source library where we can define, train, and run machine learning models entirely in the browser, using Javascript and a high-level layers API.

* Tensorflow programs can be easily run on any browser and can be complied easily. We don’t need any other platform for its execution. TensorFlow.js is hardware-accelerated because it uses WebGL (a JavaScript graphics API), so it has a good performance. A Node.js version of TensorFlow, [tfjs-node](https://github.com/tensorflow/tfjs-node), also exists and offers improved performance over the browser version.
* TensorFlow.js allows to load pretrained models. We use libraries and include image classification and pose detection on website without the need to train the model yourself.
* TensorFlow.js also allows you to load models you’ve trained in the Python version of TensorFlow which means one can write a model and train it using Python, then save it to a location available on the web and load it in your JS. This technique can significantly improve performance because you don’t have to train the model in the browser.

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