Quiz 1

TOTAL POINTS 7

1. What is the name of the API at the heart of TensorFlow.js which allows things like layers to be used?   **1 point**

   ○ JS API

   ○ Core TF API

   ● Core API

   ○ TFJS API

2. How does TensorFlow.js use GPU acceleration in the browser?   **1 point**

   ○ It works natively through GPU libraries in TensorFlow

   ● You access GPU through WebGL in the browser

   ○ It doesn't

   ○ You have to install GPU runtimes for each browser, and explicitly use them

3. How can you use a TPU with TensorFlow.js?   **1 point**

   ○ You can't

   ● You can use Node.js on GCP and access TPU instances

   ○ Only using Colab

   ○ You have to serve your JS from a GCP instance

4. Which of the following lines of code will correctly add a single dense layer containing a single neuron that takes a numeric input to a model using JavaScript?   **1 point**

   ○
   ```
   1  model.add(tf.layers({units: 1, inputShape: [1,1]}))
   ```

   ●
   ```
   1  model.add(tf.layers.dense({units: 1, inputShape: [1]}));
   ```

   ○
   ```
   1  model.add(tf.layers.dense({units= 1, inputShape: [1]}));
   ```

   ○
   ```
   1  model.add(tf.layers.dense({units: 1, inputShape:= [1]}));
   2
   ```

5. When creating data to input to a model using Python you could use a numpy array. How would you do it in JavaScript?   **1 point**

   ○ Use a tensor2d contining a numpyjs array

   ○ Use a numpyjs array

   ● Use a tensor2d containing the data and the shape of the data

   ○ Use a tensor2d containing the data

6. If I train a model to detect a linear relationship (i.e. Y=2X-1), what line of code would output a prediction from that model for Y where X=10?   **1 point**

   ○
   ```
   1  alert(model.predict([10], [1,1]));
   2
   ```

   ○
   ```
   1  alert(model.predict(10));
   ```

   ●
   ```
   1  alert(model.predict(tf.tensor2d([10], [1,1])));
   ```

   ○
   ```
   1  alert(model.predict(tf.tensor2d([10])));
   ```

7. When training a model, if I want to log training status at the end of an epoch, what is the name of the callback event you want to capture?   **1 point**

   ○ EpochEnd

   ● OnEpochEnded

   ○ OnEpochEnd

   ○ EpochEnded

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