Frontend (website)

DL model by iPython notebook and select a backend to run

```
In [ ]: import tensorflow.keras as keras
        import pandas as pd

        # Load in our data from CSV files
        train_df = pd.read_csv("data/asl_data/sign_mnist_train.csv")
        valid_df = pd.read_csv("data/asl_data/sign_mnist_valid.csv")

        # Separate out our target values
        y_train = train_df['label']
        y_valid = valid_df['label']
        del train_df['label']
        del valid_df['label']

        # Separate out our image vectors
        x_train = train_df.values
        x_valid = valid_df.values

        # Turn our scalar targets into binary categories
        num_classes = 24
        y_train = keras.utils.to_categorical(y_train, num_classes)
        y_valid = keras.utils.to_categorical(y_valid, num_classes)

        # Normalize our image data
        x_train = x_train / 255
        x_valid = x_valid / 255
```

Intermediate Servers

Server at SIUC

Server at Missouri S&T

Backends

A40 GPU

V100S GPU

The Foundry Cluster