This week I successfully worked through several errors in the flask script for running OFA. The most persistent error was, “TypeError: cannot do slice indexing on RangeIndex with these indexers [454.0] of type float” pertaining to using a float to slice a dataframe. I fixed this by ensuring that the slicing indices were explicitly casting indices. This involved making modifications to the \_get\_item and read\_data methods of the data loader script file. I made sure to use explicit index casting in both methods which involved the border1 and border2 indices in read\_data, as well as indices like s\_begin, s\_end, r\_begin, and r\_end in get\_item. I also used integer slicing any time I was accessing a dataframe in this method (i.e. seq\_x = self.data\_x[int(s\_begin):int(s\_end)]). After fixing this error, I encountered an attribute error, “AttributeError: 'Namespace' object has no attribute 'enc\_in' AttributeError: 'Namespace' object has no attribute 'enc\_in'” which I was able to address by adding the enc\_in argument to the /train route in my flask app and modifying the train\_and\_evaluate function in the flask app to pass the argument to the model. I also had to make sure that this argument was set in the \_read\_data method. This led to an attribute error, where the attribute data\_x was not recognized. This was because I was initializing self.enc\_in as “self.enc\_in = self.data\_x.shape[-1]” before defining self.data\_x, so I had to move this line to occur after the self.data\_x definition in the read\_data methods of all of the Dataset classes in the data loader script file. I also encountered and fixed another error, where the variable df\_raw was referenced before assignment, and I fixed it by moving the assignment of the variable to be prior to a line referencing it. I encountered this error, “AttributeError: 'Namespace' object has no attribute 'patch\_size'” which I addressed by removing the required=True from the model\_id argument.

After fixing these errors, I ran the script using HPC. The site loaded and I was able to upload a csv file, select “Start training,” and the training and testing was completed. However, I am running into an error when Flask tries to return the results: “TypeError: Object of type float32 is not JSON serializable”. The model evaluation is returning float32 types instead of float types which flask can’t serialize. I was a bit confused about this error, especially since it is referencing a file, File "/home/imf20006/miniconda3/envs/onefitsall/lib/python3.8/site-packages/flask/json/provider.py", but the directory python3.8 does not exist within the greater referenced directory. I will keep troubleshooting. I need to make sure that any changes I make to the file are made to the file within HPC, given that this is how I am running it.



