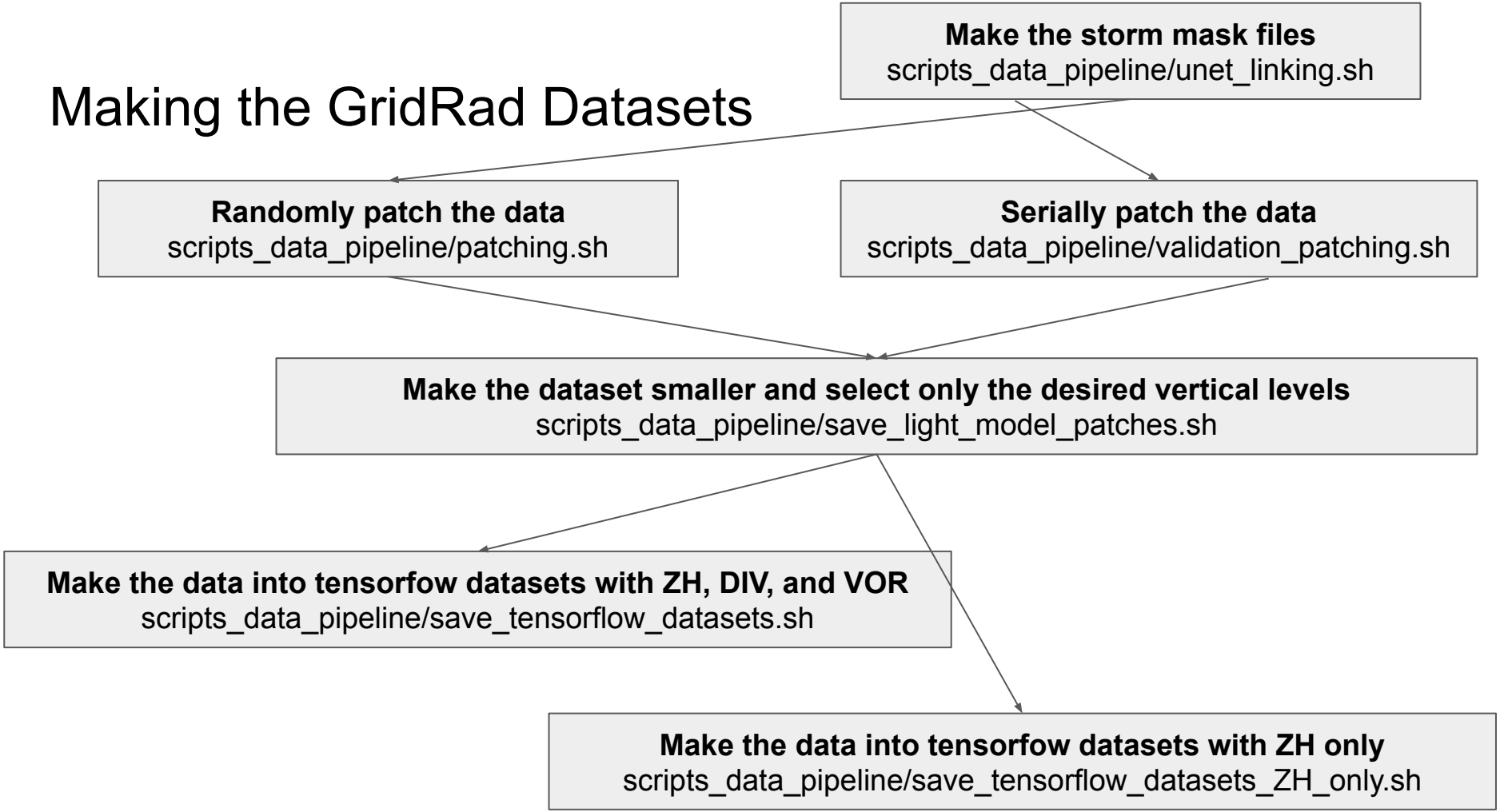
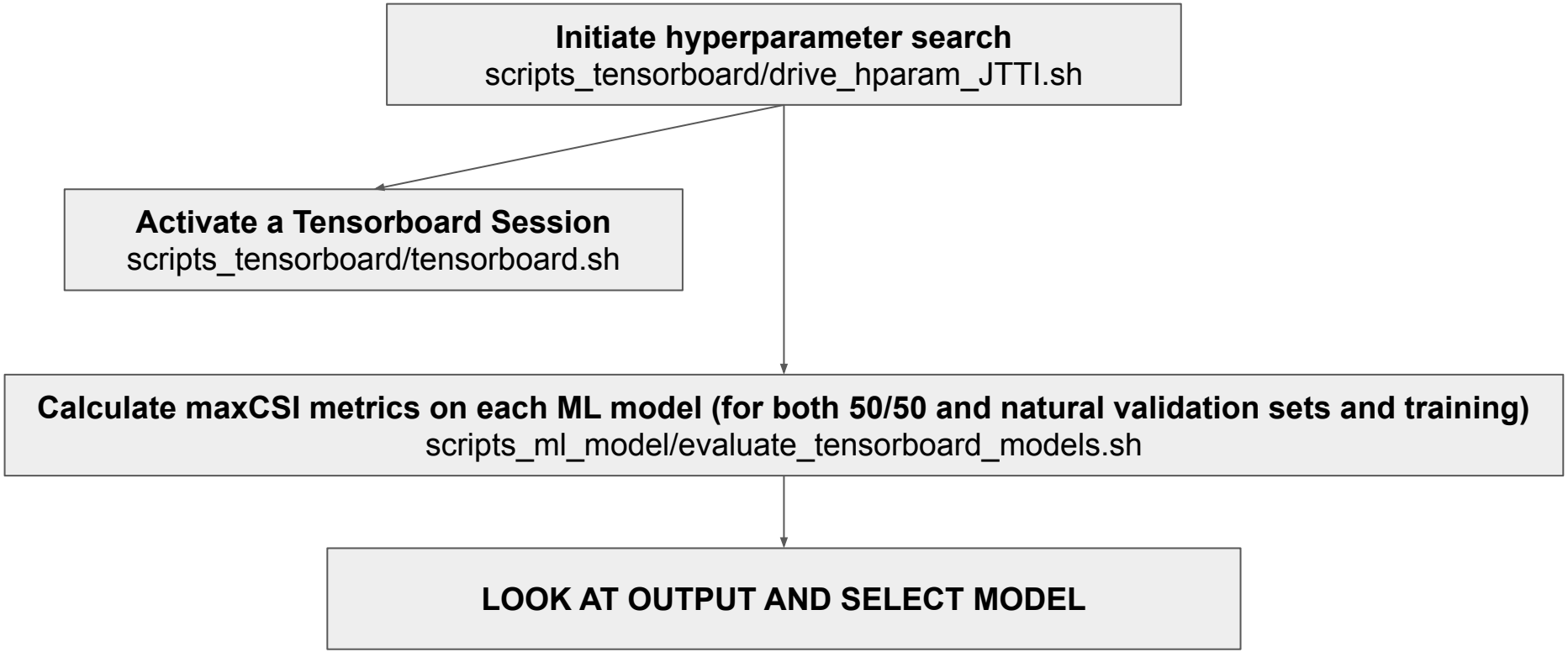
Tornado Project Flowchart

7/30/2022—Lydia Spychalla

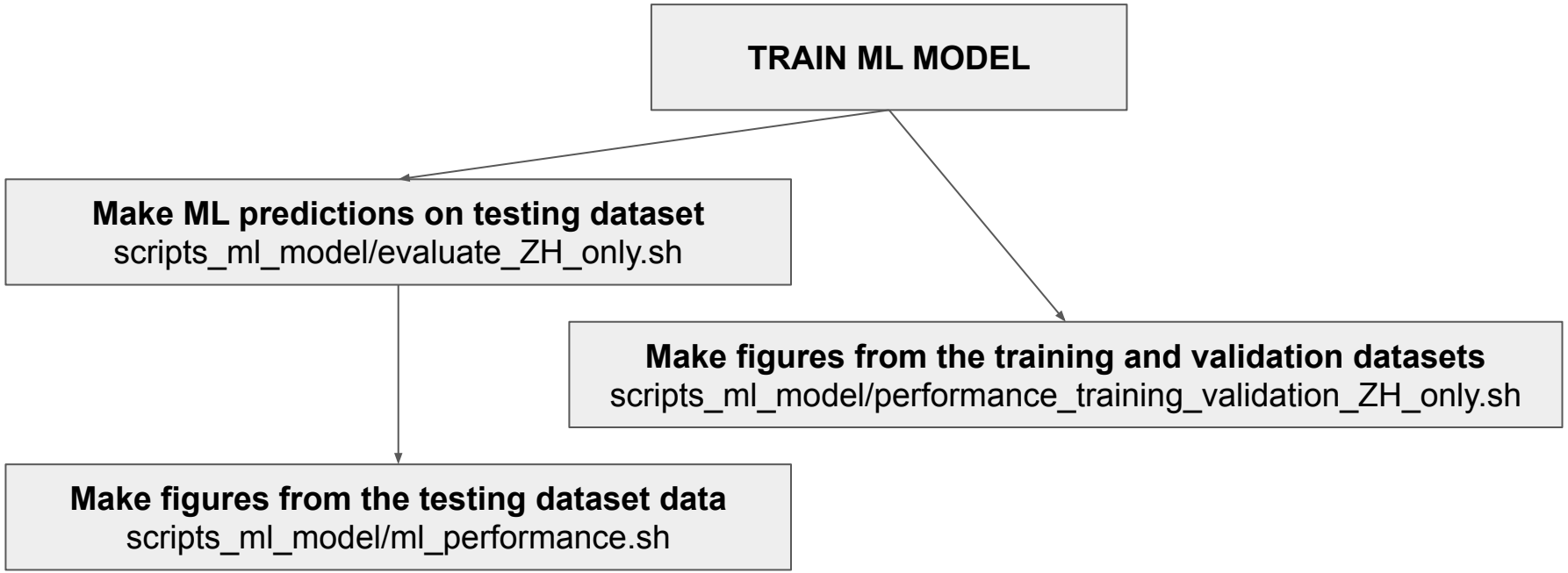
Making the GridRad Datasets



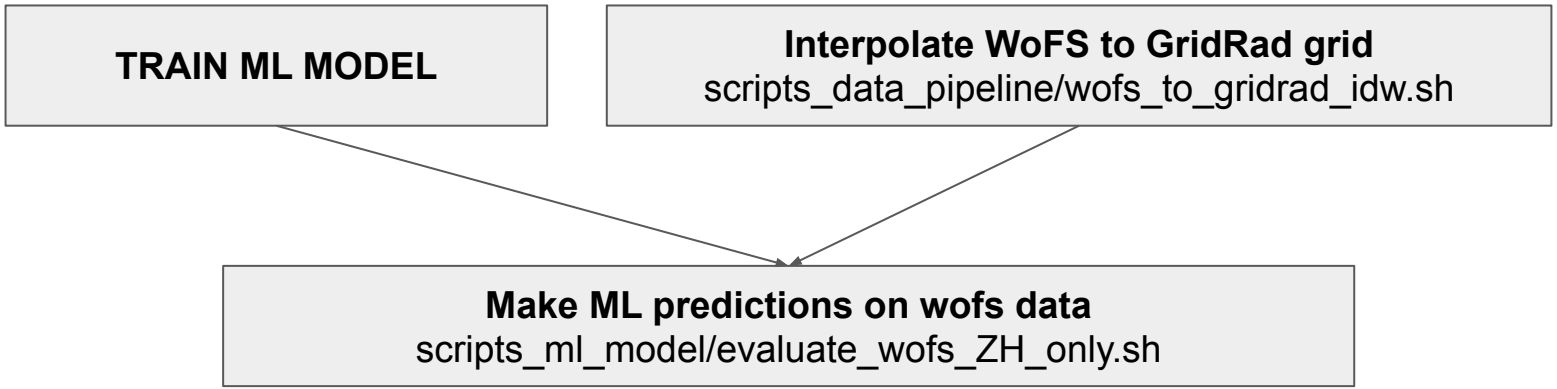
Train and select ML model using Tensorboard



Evaluate the ML model on GridRad data



Process the WoFS data



Bits of my work that still need to be wrapped up

I ran a new smallish tensorboard session (only 12 models total, could be worth just totally redoing). The best 2 models are saved out in “/ourdisk/hpc/ai2es/tornado/unet/ZH_only/”.

What needs to be done:

1. Finish using these models to predict for both gridrad and wofs data
    a. Still need model2 gridrad, model2 wofs, and model8 wofs
        i. All of this output will appear in the same directory the model is saved in

Bits of my work that still need to be wrapped up

I’m also in the process of making a natural validation dataset. The script to do that is sitting in the queue now. I think it should run successfully, but you’ll need to make sure that everything went through. That dataset should appear in “'/ourdisk/hpc/ai2es/tornado/learning_patches/tensorflow/3D_light/validation_onehot_tor/natural_validation.tf'”

1. If it goes through, re-run for all of (int, nontor_tor), (int, tor) and (onehot, nontor_tor)
2. Once the natural validation sets are made, we can run “/home/lydiaks2/scripts_tensorboard/evaluate_tensorboard_models.sh” to compare all the models on tensorboard. From this script, we can calculate maxCSI on training, 50/50 validation and natural validation datasets. This file may need a little bit of debugging still, just fyi.