# Hydrology Project

### 2/11 – Meeting

Setup

* Git repo
* Russian river data has to be private, rest of the repo can be public
* Comms on slack

### 2/14

Bayesian sampling for hyper parameter search

* Currently using grid search
* Currently testing epochs, hidden states, hidden layers(1), lookback sequences (how many days or hours we’re looking back)
* Since hidden layers didn’t make much of a difference (between 1 and 2), technically just three variable hyper parameters

Cross validation

* Daily model – manageable
* Train on gpu if possible
* Grid search notebooks – add cv there for each hyperparameter optimization, look into 4 folds, best average NSE is best model
* Time series split sklearn – or manually split it
* Time series cv is not like normal cv
* 4 fold because we have 8 water years – divides up well