

# First sweep report

Here is a report from the first sweep.

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The data used is the SN-BAS SoccerNet data. The difference from the best to the worst performing run is  $\sim 0.03$  mAP. It is not a big difference, but it is not insignificant. Weight decay has a correlation = -0.259 and learning rate has correlation = 0.251. Strong correlation is achieved at  $\sim 0.7$ . So the parameters here are not highly influential.

In the next sweep, **batch size** will be set to **2** because it does not appear to be influential.

**Drop-path** is a little more difficult, because it seems the extreme values  $\{\sim 0.18, \sim < 0.03\}$  perform better than the values in the middle.

From the parameter correlation **weight decay** will have a low value ( $< 0.04$ ) because visually that is where it performs best.

**Learning rate** visually seems to have the opposite features of drop\_path, that its more average values ( $\sim 0.0001$ ) perform best.

Below lies the .yaml configuration used and the charts.

## Section 1

entity: jofalck-ntnu

project: video-mamba-suite

program: train\_eval.py

method: bayes

metric:

name: validation/mAP

goal: maximize

**command:**

```
- python  
- train_eval.py  
- configs/mamba_custom.yaml  
- --wandb  
- --wandb_project  
- video-mamba-suite  
- --wandb_entity  
- jofalck-ntnu
```

**parameters:****opt.learning\_rate:**

distribution: uniform

min: 5e-5

max: 2e-4

**opt.weight\_decay:**

distribution: uniform

min: 0.01

max: 0.1

**loader.batch\_size:**

distribution: categorical

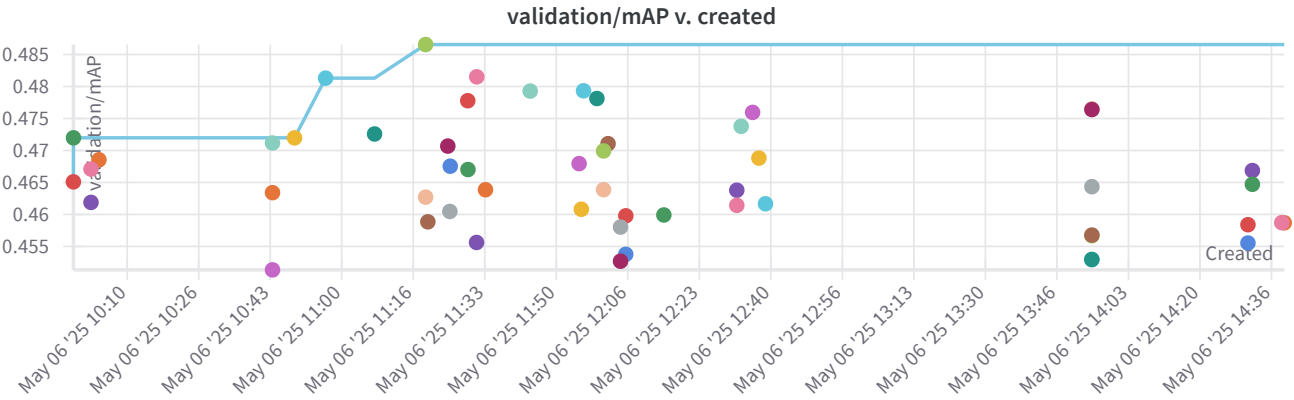
values: [1, 2, 4]

**train\_cfg.droppath:**

distribution: uniform

min: 0.0

max: 0.2



Parameter importance with respect to validation/mAP

Search

Parameters

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Config parameter

Importance

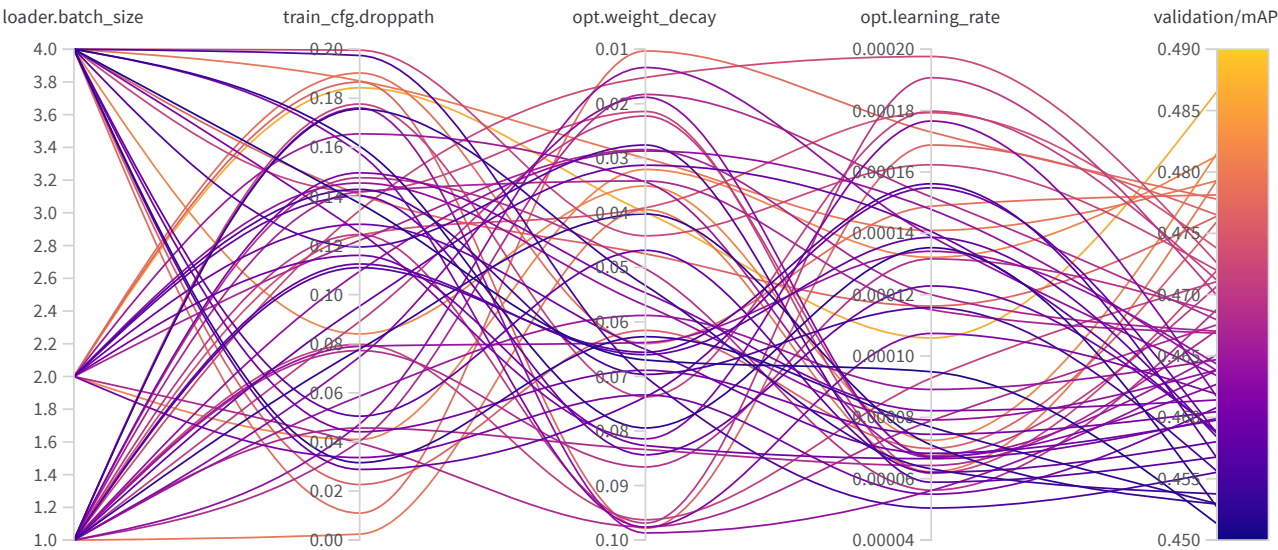
Correlation

train\_cfg.droppath

opt.weight\_decay

opt.learning\_rate

loader.batch\_size



Created with ❤️ on Weights & Biases.

<https://wandb.ai/jofalck-ntnu/video-mamba-suite/reports/First-sweep-report--VmldzoxMjYzNjgwOA>