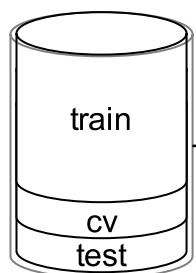


## 22GiB Army Labeled Set



4.32 million rows  
1024 complex samples

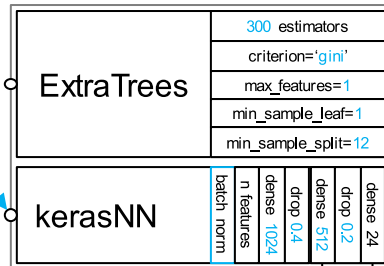
## Engineering Features



up to 3241 features  
up to 18hrs compute

cache

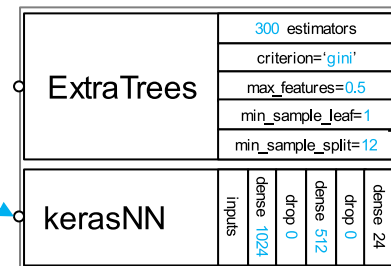
## Shallow Classification



NN 1hr in GPU  
ET 36hrs in CPU

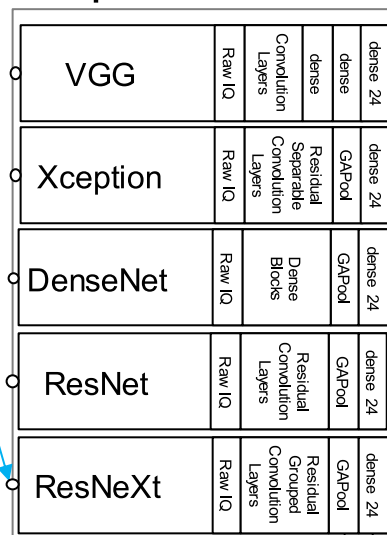
cache

## Fusion Learning



NN 20min in GPU  
ET 3hrs in CPU

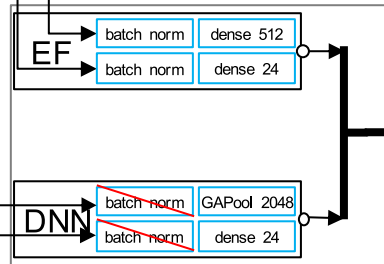
## Deep Neural Networks



up to 20 days in GPU

cache

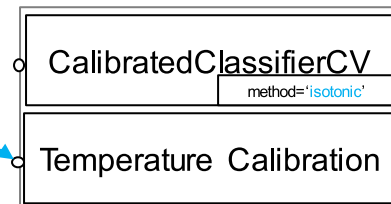
## Feature Fusion



novel technique

65.281

## Calibration



bias reduction

75.869

76.422

74.693