

```
use_lsf: false
use_slurm: true
use_singularity: true
use_debugpy: false
```

```
pipelines:
  - 1 # preprocessing
```

```
preprocessing:
  output_log: "preprocess_output.log"
  base_dir: "data_xenium"
  data_dir: "data_segger"
  sample_type: "xenium"
  scrnaseq_file: "scrnaseq.h5ad"
  celltype_column: "cell_labels"
  k_bd: 3
  dist_bd: 15.0
  k_tx: 3
  dist_tx: 5.0
  tile_size: null
  tile_width: 120
  tile_height: 120
  neg_sampling_ratio: 5.0
  frac: 1.0
  val_prob: 0.1
  test_prob: 0.2
  n_workers: 24
  memory: "120G" # this is ignored if use_lsf is false
  account: "def-dcook"
  time: "5:00:00"
  error_log: "preprocess_output.err"
```

```
training:
  output_log: "train_output.log"
  dataset_dir: "data_segger"
  models_dir: "model_dir"
  sample_tag: "first_training"
  init_emb: 8
  hidden_channels: 32
  num_tx_tokens: 500
  out_channels: 8
  heads: 2
  num_mid_layers: 2
  batch_size: 4
  num_workers: 24
  accelerator: "cuda"
  max_epochs: 200
  save_best_model: true
  learning_rate: 1e-3
  pretrained_model_dir: null
```

```
pretrained_model_version: 0
devices: 8
strategy: "auto"
precision: "16-mixed"
memory: "500G" # this is ignored if use_lsf is false
account: "def-dcook"
time: "8:00:00"
```

prediction:

```
output_log: "predict_parquet_output.log"
segger_data_dir: "data_segger"
models_dir: "model_dir"
benchmarks_dir: "benchmark_dir"
transcripts_file: "data_xenium/transcripts.parquet"
batch_size: 1
num_workers: 12
model_version: 0
save_tag: segger_embedding
min_transcripts: 5
cell_id_col: segger_cell_id
use_cc: false
knn_method: "kd_tree"
file_format: "anndata"
k_bd: 4
dist_bd: 15.0
k_tx: 5
dist_tx: 5.0
memory: "80G" # this is ignored if use_lsf is false
account: "def-dcook"
devices: 4
time: "4:00:00"
save_cell_masks: true
```

```
local_repo_dir: "/project/def-dcook/bin/segger/segger_dev"
container_dir: "/project/def-dcook/bin/segger/segger_dev" # this is
ignored if use_singularity is false
pwd_dir: "/project/def-dcook/active/cell_segmentation_segger"
singularity_image: "/project/def-dcook/bin/segger/
segger_dev_cuda121.sif" # this is ignored if use_singularity is false
```