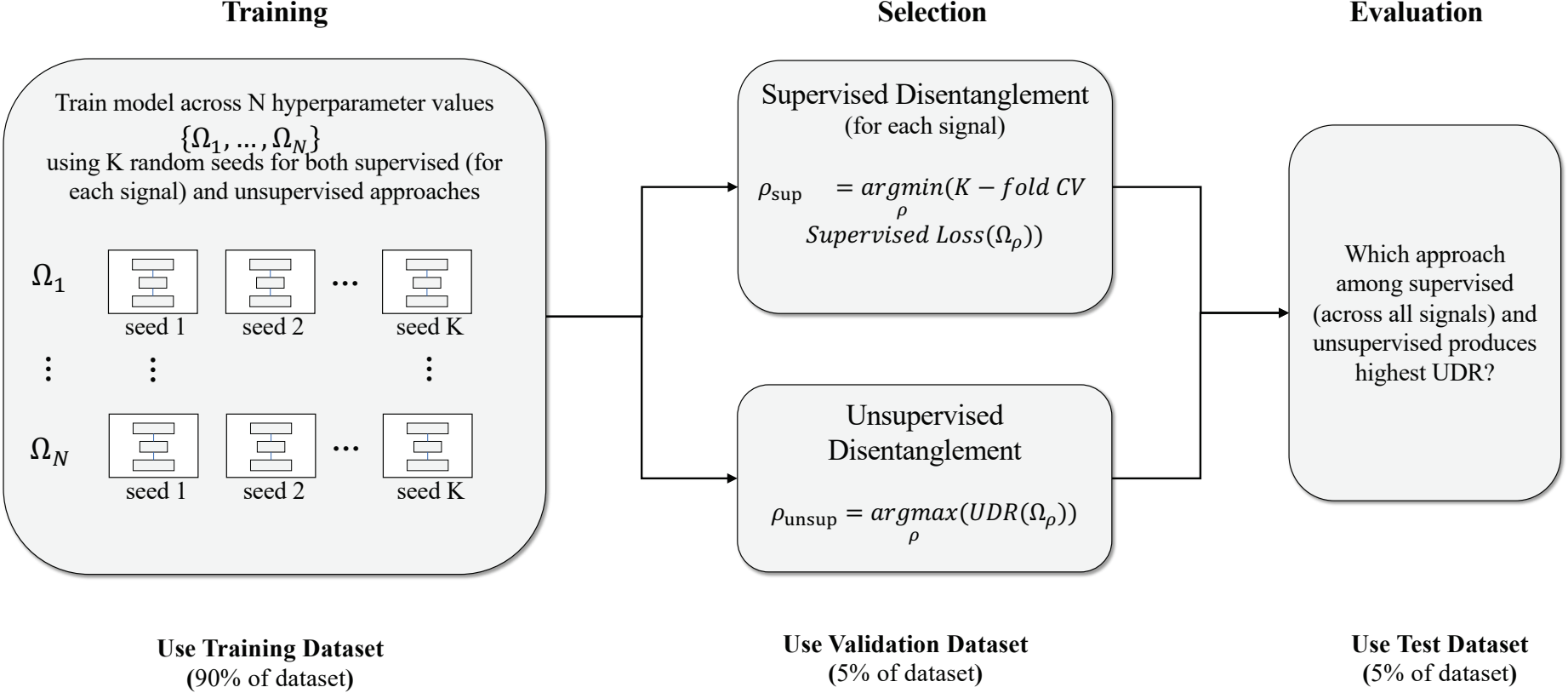
Training
Selection
Evaluation
Train model across N hyperparameter values
$\{\Omega_1, \ldots, \Omega_N\}$
using K random seeds for both supervised (for each signal) and unsupervised approaches
Ω_1
seed 1
seed 2
seed K
Ω_N
seed 1
seed 2
seed K
Supervised Disentanglement
(for each signal)
$\rho_{\text{sup}} = \underset{\rho}{argmin}(K-fold\ CV\ Supervised\ Loss(\Omega_\rho))$
Unsupervised Disentanglement
$\rho_{\text{unsup}} = \underset{\rho}{argmax}(UDR(\Omega_\rho))$
Which approach among supervised (across all signals) and unsupervised produces highest UDR?
Use Training Dataset
(90% of dataset)
Use Validation Dataset
(5% of dataset)
Use Test Dataset
(5% of dataset)