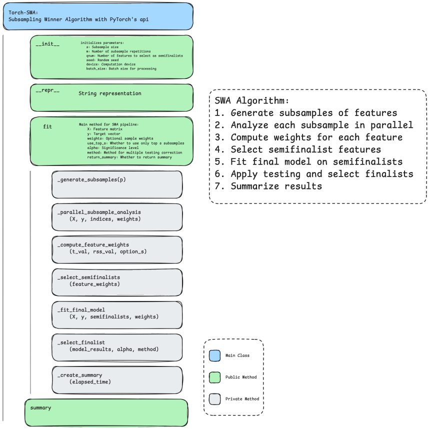
Subsampling Winner Algorithm for heteroskedastic variance data

h-SWA

h-SWA as a three-stage procedure:

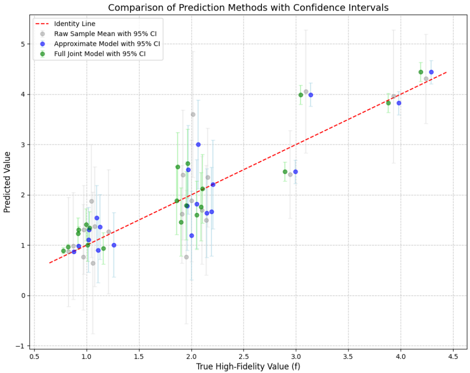
- Estimates observation-specific variances through subsample **residual** aggregation.
- Refines estimates via **smoothing** methods.
- Uses the estimated variances to weight the data and **transform** the heteroskedastic problem into a homoskedastic one, allowing standard SWA to be applied.



Offline Simulation Online Learning

OSOL

The OSOL algorithm is an online parameter estimation method that combines inexpensive low-fidelity model information with expensive high-fidelity simulation data through online generative updates, enabling efficient **simulation budget allocation** while maintaining **statistical accuracy**.



Explainable Machine Learning to Improve Donor-Recipient Matching at Time of Heart Transplantation

A Complete Data Science Pipeline