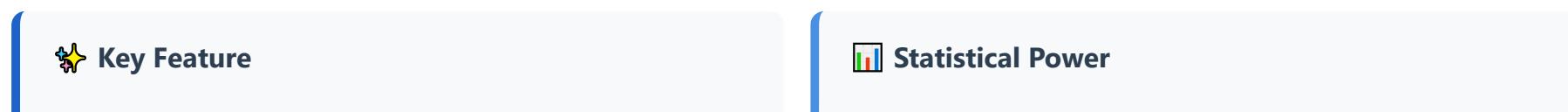
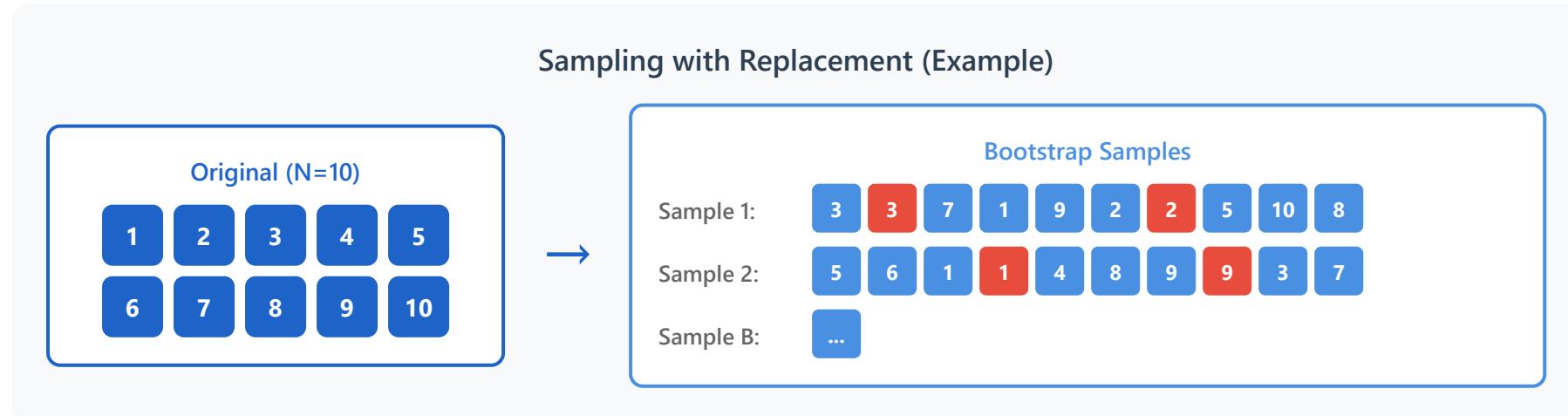
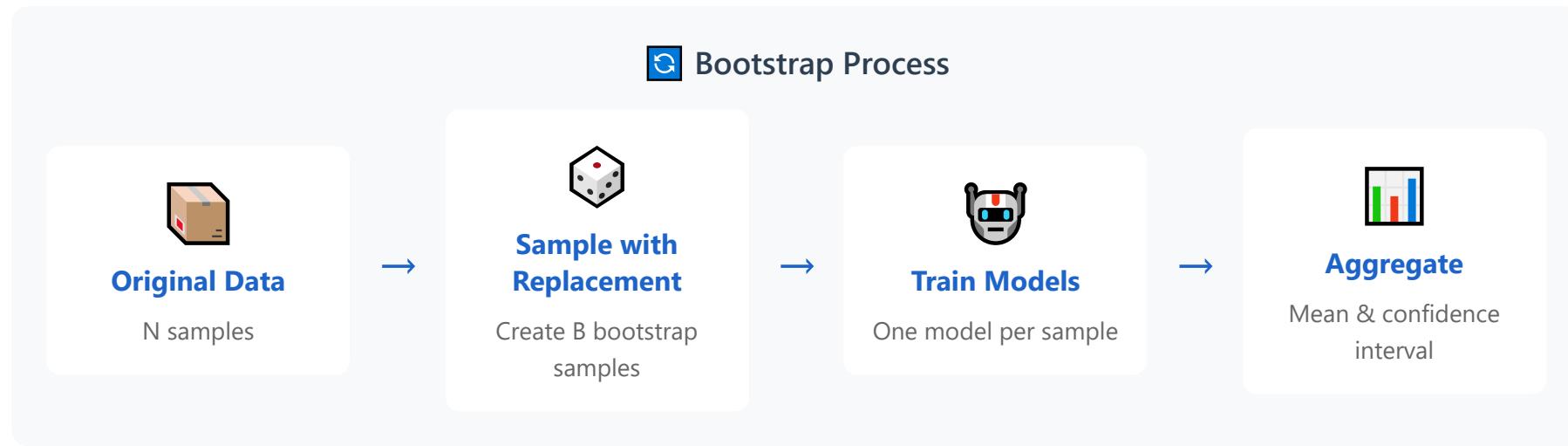


# Bootstrapping



Samples with replacement: same data point can appear multiple times in a bootstrap sample

Provides confidence intervals and variance estimates for model performance

### Common Uses

Estimate model uncertainty

Build ensemble methods (Bagging)

Small dataset validation