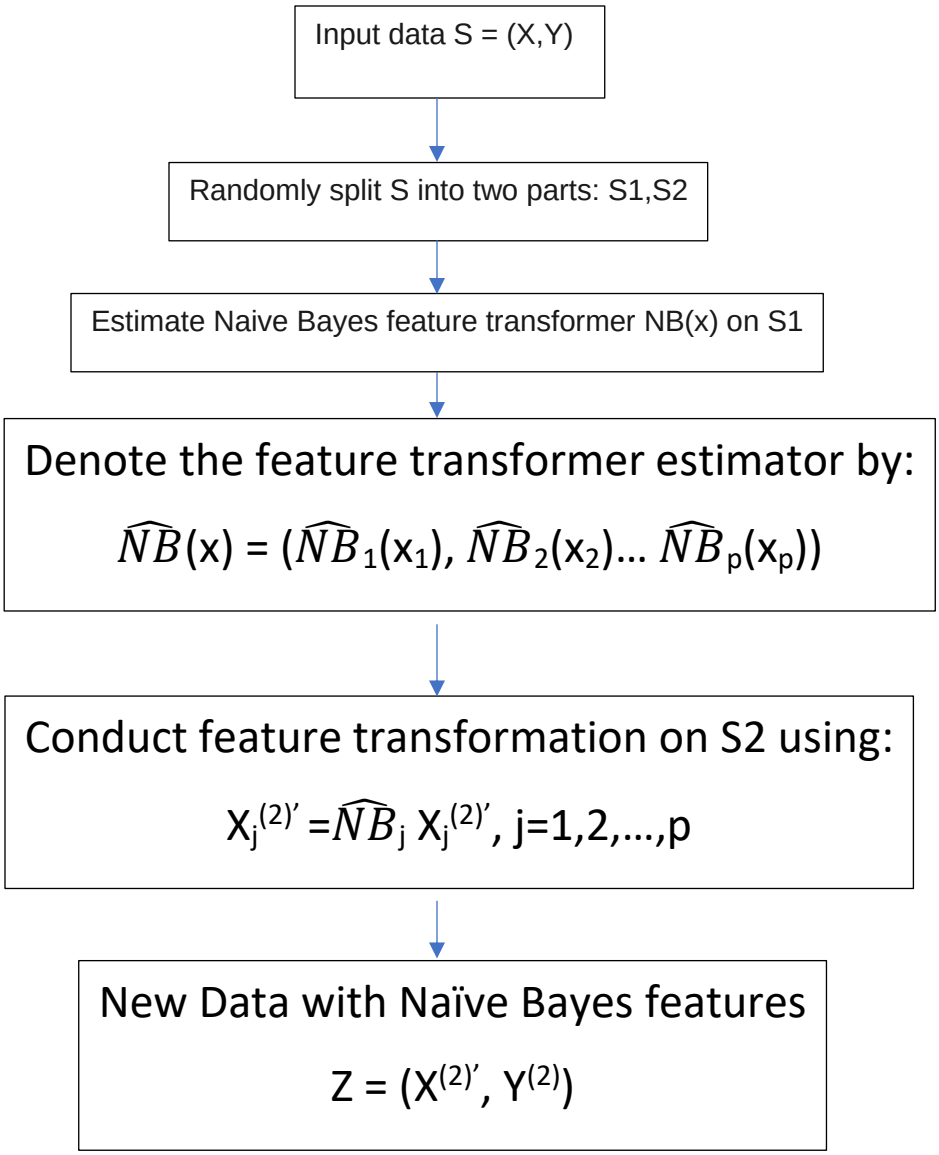
Input data S = (X,Y)
Randomly split S into two parts: S1,S2
Estimate Naive Bayes feature transformer NB(x) on S1
Denote the feature transformer estimator by:
$\widehat{NB}(x) = (\widehat{NB}_1(x_1), \widehat{NB}_2(x_2) \ldots \widehat{NB}_p(x_p))$
Conduct feature transformation on S2 using:
$X_j^{(2)'} = \widehat{NB}_j X_j^{(2)'}, j=1,2,\ldots,p$
New Data with Naïve Bayes features
$Z = (X^{(2)'}, Y^{(2)})$