Input: Data on units $i = 1, \dots N$ with covariates Z_i and a binary treatment indicator D_i

Result: BLP, GATES, CLAN

begin
- Fix the number of splits S and significance level α, e.g. $S = 100$ and $\alpha = 0.05$
- Compute the propensity scores $p(Z_i)$
- Split the data S times into equally sized subsamples $Data_A$, $Data_M$
- **for** $s = 1 \dots S$ **do**
  - **for** *Algo in ML Algorithms* **do**
    - Tune and train *Algo* in $Data_A$ to learn $B(Z_i)$ and $S(Z_i)$
    - Predict $B(Z_i)$ and $S(Z_i)$ in $Data_M$
    - Construct k groups based on proxy $S(Z_i)$
    - Estimate BLP parameters in $Data_M$
    - Estimate GATES parameters in $Data_M$
    - Estimate CLAN parameters in $Data_M$
    - Compute performance measures
  - **end**
- **end**
- Compute medians of parameters of interest, adjusted confidence intervals, adjusted p-values, and medians of performance measures

end