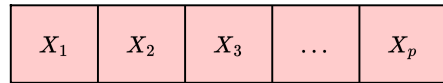


(1) Observed Data Preprocessing

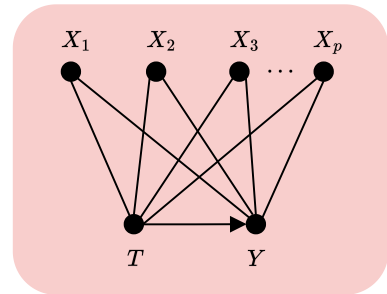
ID	Covariates			Treatment	Y	Outcomes		Causal Effect
	X_1	...	X_d	T		Y^1	Y^0	$Y^1 - Y^0$
1	22	...	Male	1	0	0	?	?
2	54	...	Female	0	1	?	1	?
3	36	...	Female	0	0	?	0	?
4	61	...	Male	1	1	1	?	?
⋮								

(2) Confounder Discovery (ConfounderDCI)

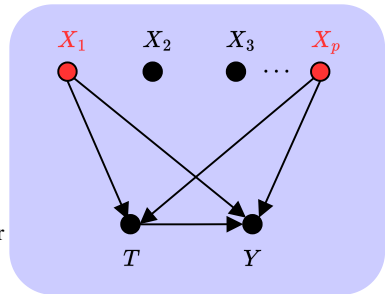
$X_i \in X$, X is a set of covariates.



$X_j \in C \subset X$, C is a set of confounders.



$X_i \perp\!\!\!\perp_P C_0$
 $X_i \not\perp\!\!\!\perp_P C_0 | T$
 C_0 is a prior confounder



(3) Causal Matching for Causal Inference

