Dataset *D_C*

 $\nabla f_1(\theta)$

 $\nabla f_2(\theta)$

 $\nabla f_3(\theta)$

 $\nabla f_4(\theta)$

 $\nabla f_5(\theta)$

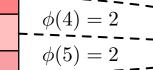
 $\nabla f_6(\theta)$

 $\nabla f_7(\theta)$

 $\nabla f_8(\theta)$







 $\phi(6) = 2$

 $\phi(3) = 2$



 $\gamma(1) = 2$

Coreset Selection









 $\left|\left|\sum_{i=1}^{C} \nabla f_i(\theta) - \sum_{j=1}^{|C|} w_j \nabla f_{\gamma(j)}(\theta)\right|\right|$

Coreset C



$$w_1 \nabla f_{\gamma}$$

$$\begin{bmatrix} w_2 \nabla f_{\gamma(2)}(\theta) \\ w_3 \nabla f_{\gamma(3)}(\theta) \end{bmatrix}$$