

Dataset D_C

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|----------------------|--|--|--|
| | | | |
| $\nabla f_1(\theta)$ | | | |
| $\nabla f_2(\theta)$ | | | |
| $\nabla f_3(\theta)$ | | | |
| $\nabla f_4(\theta)$ | | | |
| $\nabla f_5(\theta)$ | | | |
| $\nabla f_6(\theta)$ | | | |
| $\nabla f_7(\theta)$ | | | |
| $\nabla f_8(\theta)$ | | | |

Coreset C

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|--|--|--|--|
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$$w_1 \nabla f_{\gamma(1)}(\theta)$$

$$w_2 \nabla f_{\gamma(2)}(\theta)$$

$$w_3 \nabla f_{\gamma(3)}(\theta)$$

$$\gamma(1) = 2$$

$$\phi(3) = 2$$

$$\phi(4) = 2$$

$$\phi(5) = 2$$

$$\phi(6) = 2$$

Coreset Selection

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