

CROSS-VALIDATE(\mathcal{D}, k)

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1  divide  $\mathcal{D}$  into  $k$  chunks  $\mathcal{D}_1, \mathcal{D}_2, \dots, \mathcal{D}_k$  (of roughly equal size)
2  for  $i = 1$  to  $k$ 
3      train  $h_i$  on  $\mathcal{D} \setminus \mathcal{D}_i$  (withholding chunk  $\mathcal{D}_i$ )
4      compute "test" error  $\mathcal{E}_i(h_i)$  on withheld data  $\mathcal{D}_i$ 
5  return  $\frac{1}{k} \sum_{i=1}^k \mathcal{E}_i(h_i)$ 
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