

⊕ Softmax derivative note

$$y = i \rightarrow (\text{soft}_i - \text{soft}_i^2) \frac{\partial L}{\partial m_i}$$

$$y \neq i \rightarrow \sum_n \text{soft}_i \cdot \text{soft}_n \cdot \frac{\partial L}{\partial m_n}$$

- You must comm
this before
summing soft_n

- Because you can
indiv. relate bet.
 soft_n ith $\frac{\partial L}{\partial m_n}$

→ Sum of rows in
each times soft_i
→ offset w/ $\frac{\partial L}{\partial m}$
 soft_i

→ or else
deriv. won't
be zero!