Model performance in CER (%) against each dialect without pre-training 64.0 48.98 71.49 65.71 80.14 Egyptian - $(\pm 2.04)$  $(\pm 5.92)$  $(\pm 3.87)$  $(\pm 5.08)$  $(\pm 5.78)$ - 80 - 75 57.45 65.29 65.29 57.8 73.65 Gulf - $(\pm 3.34)$  $(\pm 5.99)$  $(\pm 2.2)$  $(\pm 4.13)$  $(\pm 3.83)$ Dialect fine-tuned on - 70 63.09 74.5 74.83 84.78 54.85 Iraqi - $(\pm 10.21)$  $(\pm 6.37)$  $(\pm 5.09)$  $(\pm 11.01)$  $(\pm 17.12)$ - 65 53.01 62.76 61.24 52.71 72.15 60 Levantine - $(\pm 9.89)$  $(\pm 4.07)$  $(\pm 5.37)$  $(\pm 3.83)$  $(\pm 4.54)$ - 55 53.14 62.13 61.59 54.59 55.99 Maghrebi - $(\pm 2.46)$  $(\pm 3.32)$  $(\pm 1.35)$  $(\pm 3.82)$  $(\pm 1.88)$ 50 Dialect tested on