



ICFHR 2014 Competition on Handwritten Digit String Recognition in Challenging Datasets (HDSRC 2014)

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Single Digit Competition

100 % →

HDRC (ICDAR 2013)

21 780 digits - 97.74 %

MNIST

10 000 digits - 99.77 %

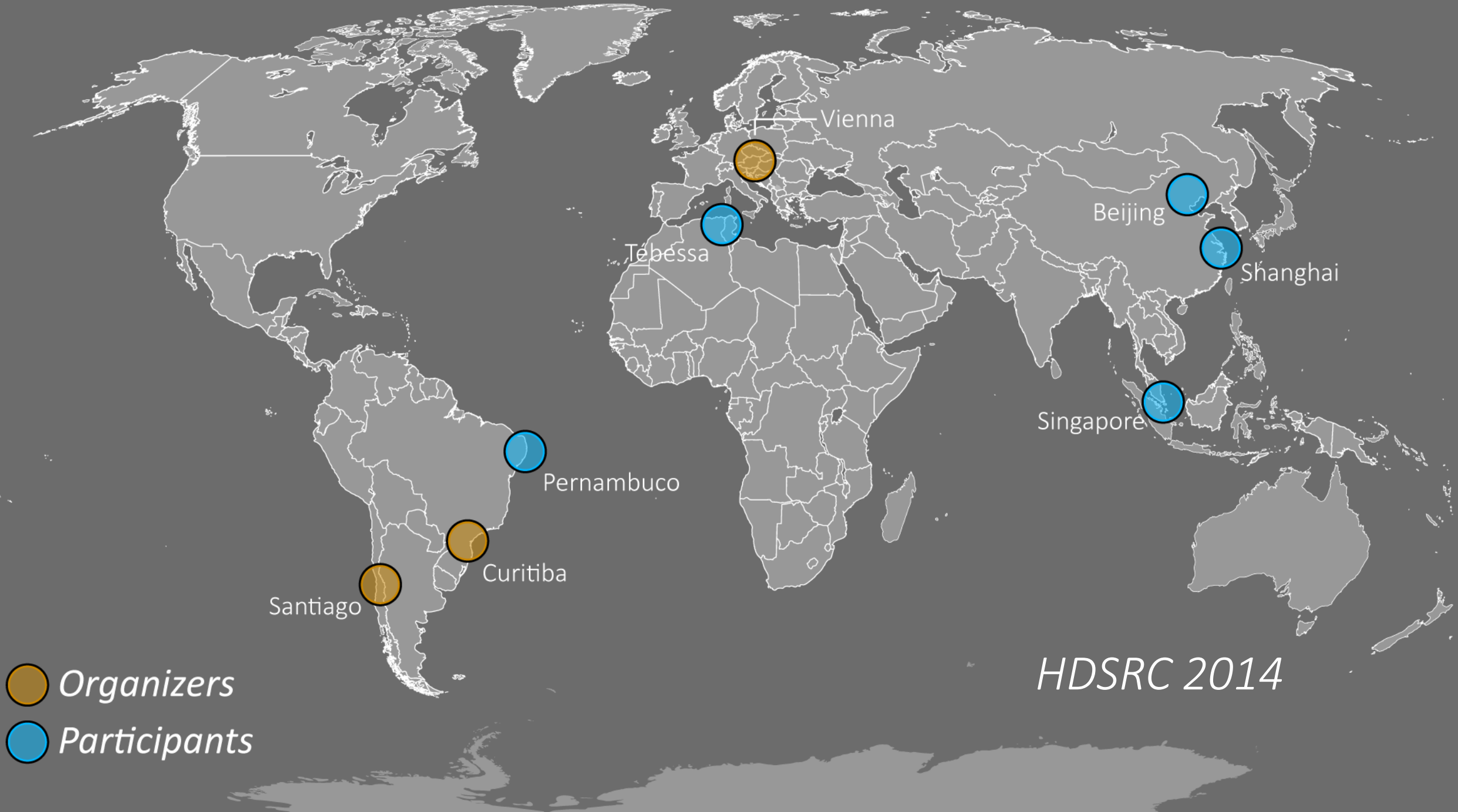
Digit String Competition

CVL Database

6698 digit strings - 85.30 %

CAR Databases

6720 digit strings - 75.40 %

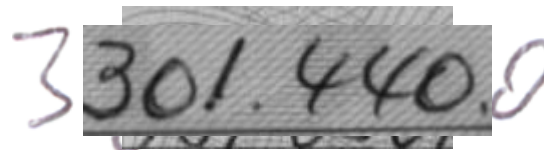


-  *Organizers*
-  *Participants*

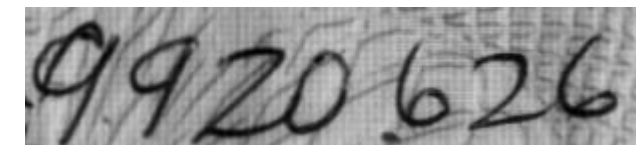
HDSRC 2014

Databases

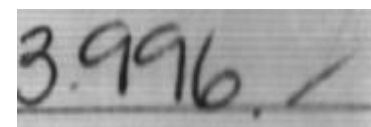
- CVL Database (7690 images)
 - Strings written by students
 - Clean background
- CAR-A Database (5793 images)
 - Strings from Uruguayan bank checks
 - Cropped real world data
- CAR-B Database (5936 images)
 - Strings from Chilean bank checks
 - Cropped real world data



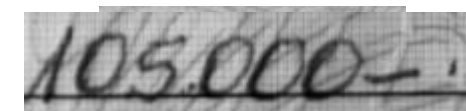
3301.440.0



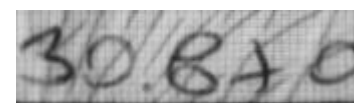
9920.626



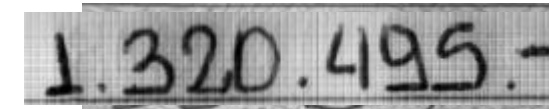
3.996.



105.000.-



30.870



1.320.495.-

Evaluation Setup

- One training set for all databases
 - Reduce overfitting to modalities of the databases
- Executables were submitted which output 1st - 3rd guess
- Evaluation measures
 - Precision of 1st to 3rd guess
 - Normalized Levenshtein Distance (Edit Distance)

substitution

~~I~~JCVHR

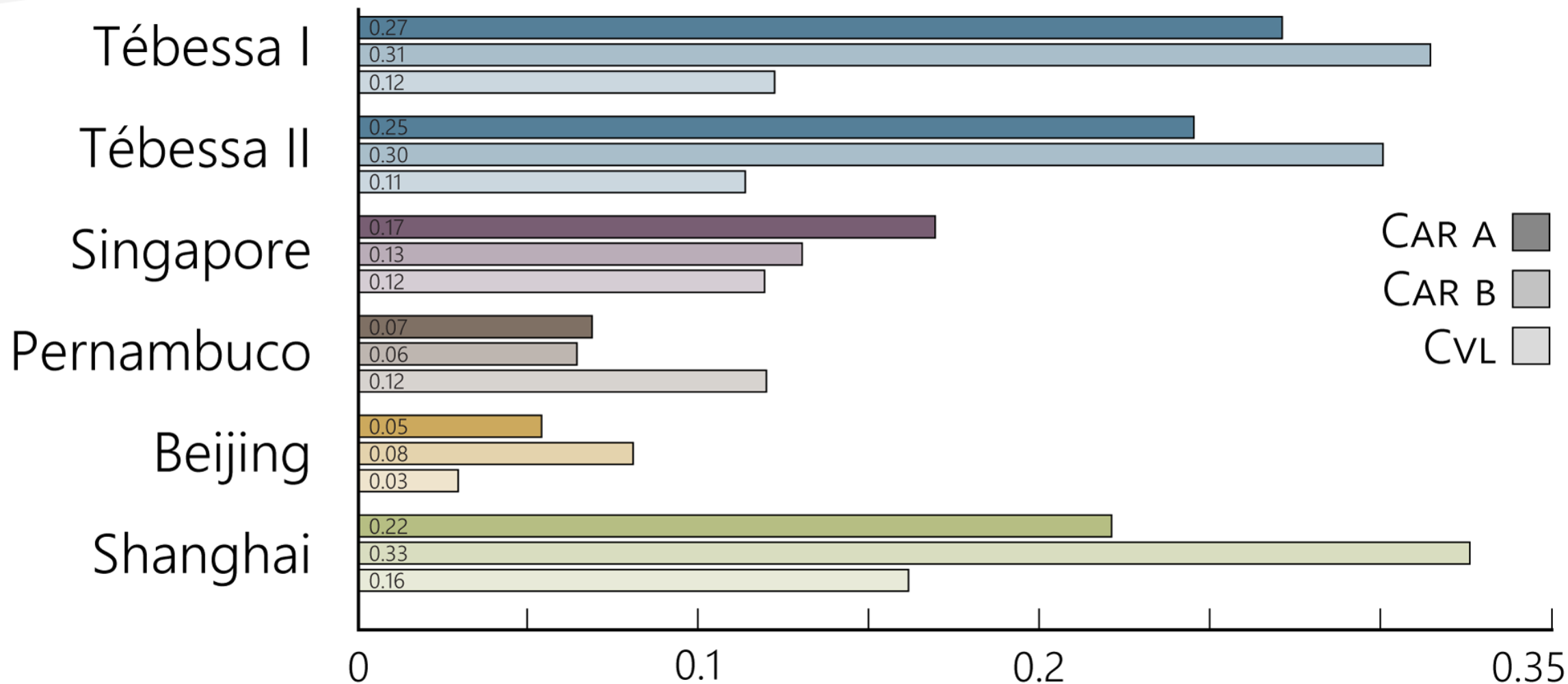
+2

ICVHR

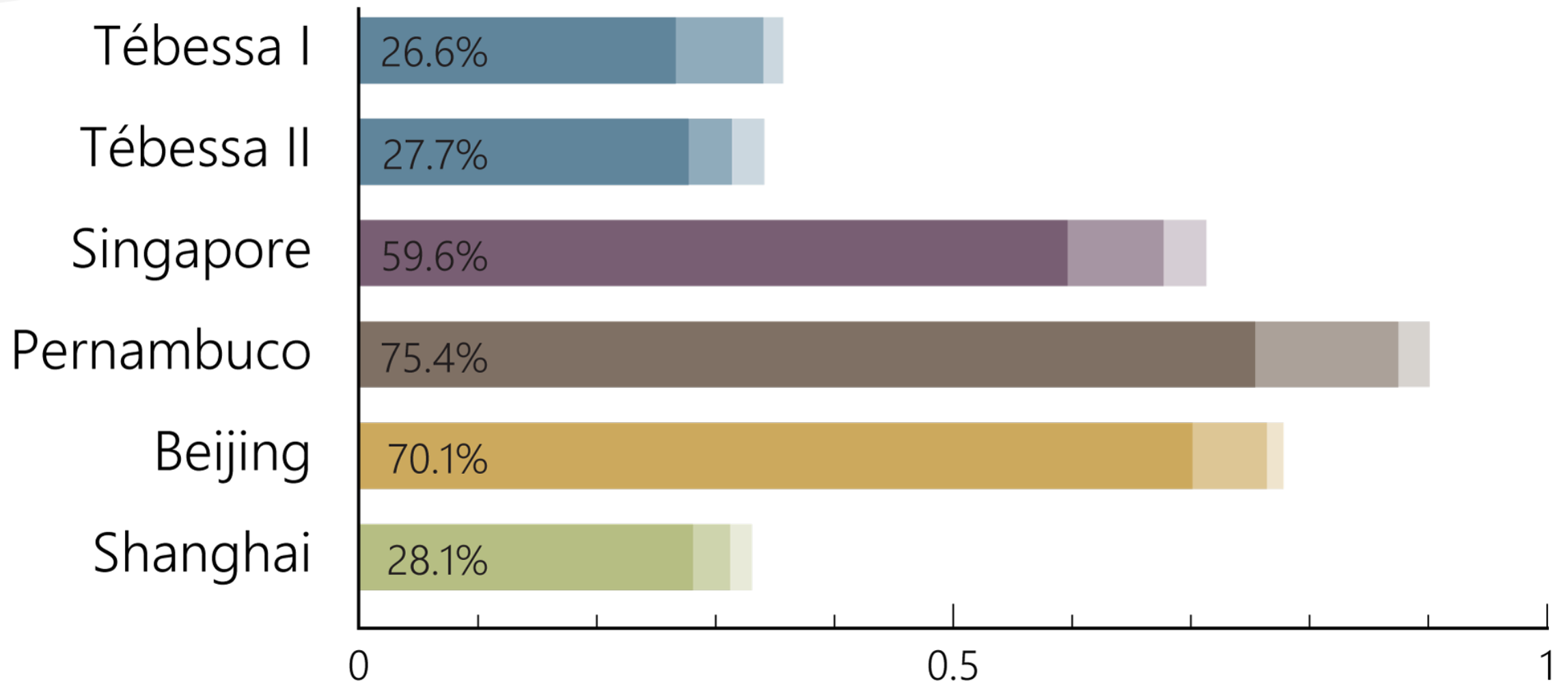
ED(2)

ICFHR

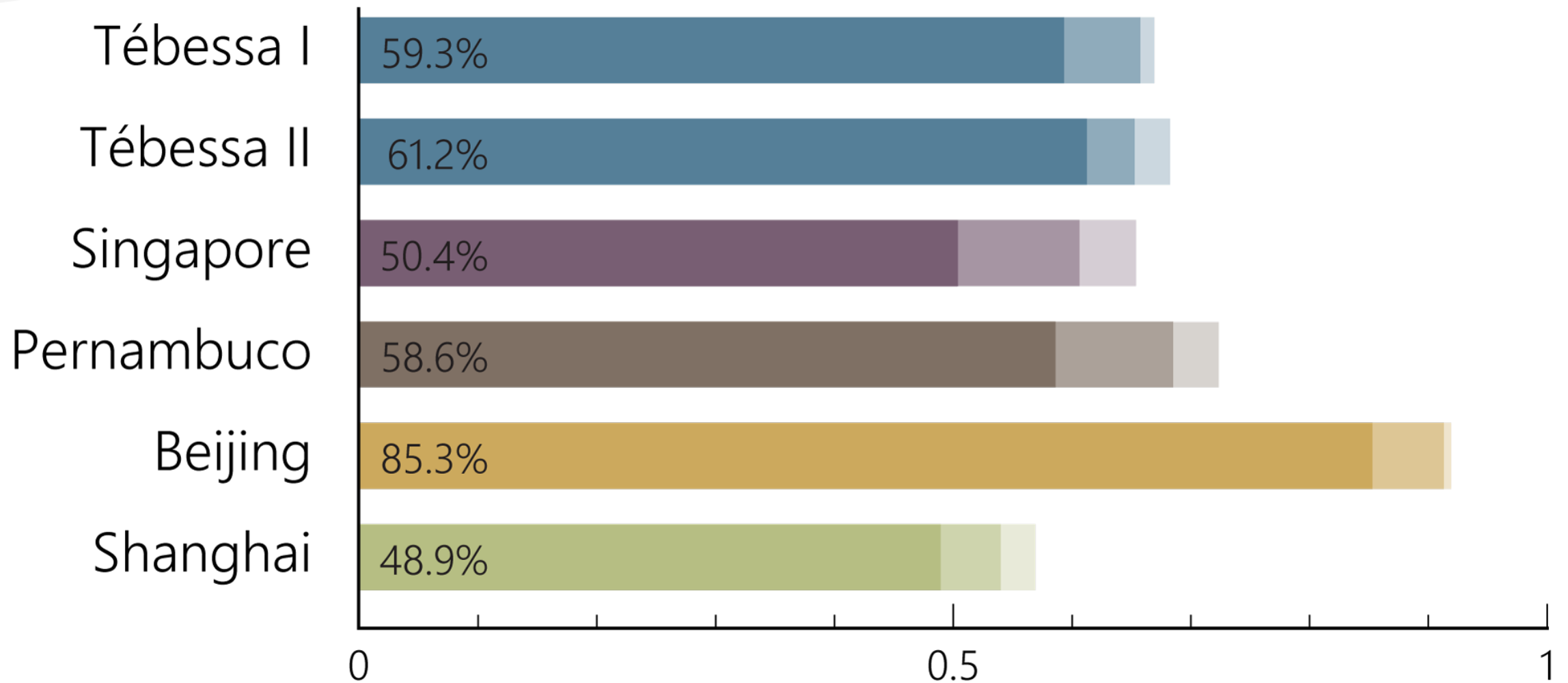
Edit Distance



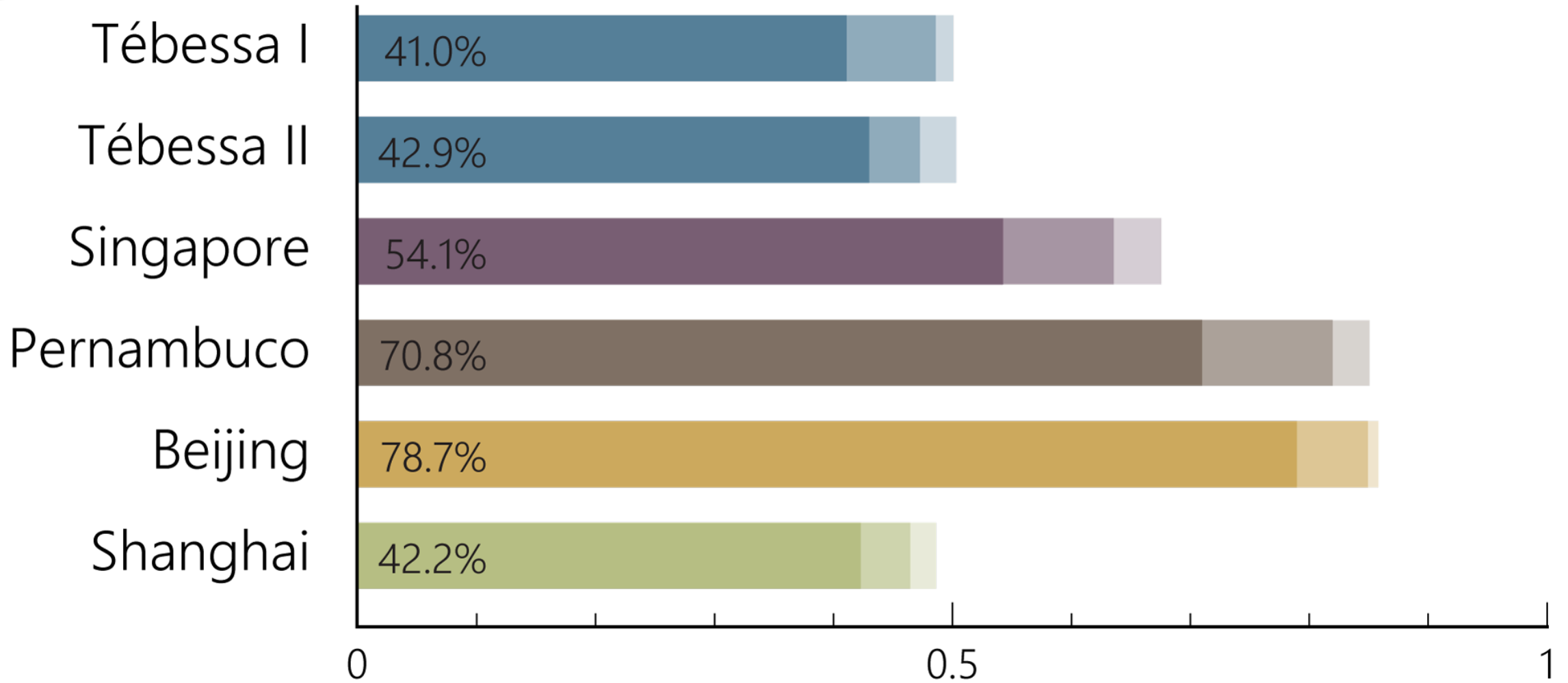
Precision CAR B Database



Precision CVL Database



Average Precision



The Winner is...



Yi-Chao Wu, Fei Yin, Chang Zhong, Cheng-Lin Liu

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Precision CAR A Database

