

**Best
Student
Runner-
up**

Reusing Models Using K-Nearest
Neighbors And Weighted
Arithmetic Mean To Predict Future
Use Of Bike Stations For The
MoReBikeS Challenge 2015

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**8th
Position**

Autoritas participati
MoReBikeS: Model Reuse with Bike
rental Station data Technical
Report

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- ▶ Combine the predictions of the K nearest stations (1:200) to the target stations (201:275) using the Euclidean distance.
- ▶ Distances between stations are also used to weight the predictions.
- ▶ Apply the best model from observed stations (1:200) in terms of MAE using the one-month training data.

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Submission	Neighbour	Mean Absolute
number	number (K)	Error (MAE)
<i>2</i>	<i>1</i>	<i>2.722</i>
<i>3</i>	<i>5</i>	<i>2.430</i>
<i>4</i>	<i>10</i>	<i>2.434</i>
<i>5</i>	<i>25</i>	<i>2.416</i>
<i>6</i>	<i>50</i>	<i>2.430</i>
<i>7</i>	<i>100</i>	<i>2.444</i>

- ▶ The same approach with different K values were submitted to the 1st leaderboard.

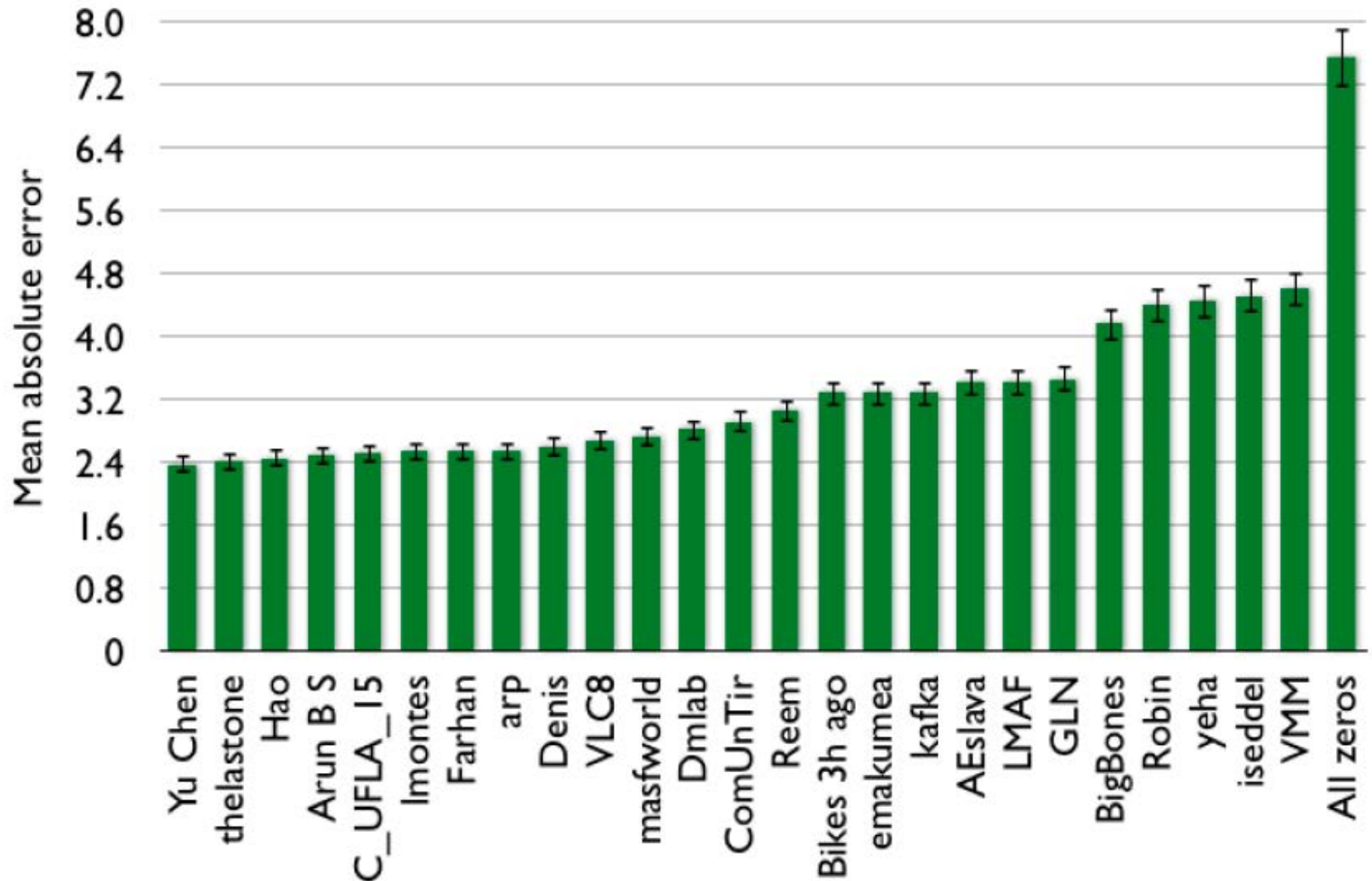
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- ▶ Combine the predictions of the stations (1:200) that are 700m far (at the most) using the Euclidean distance.
- ▶ Select the best model (1:200) in terms of MAE for the same time and weekday than the station to predict.
- ▶ Sundays and holidays have an especial treatment.

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THANK YOU

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