

# Hashtag recommendation

Wrocław

github.com/data-boars/hashtag-recommendation-project

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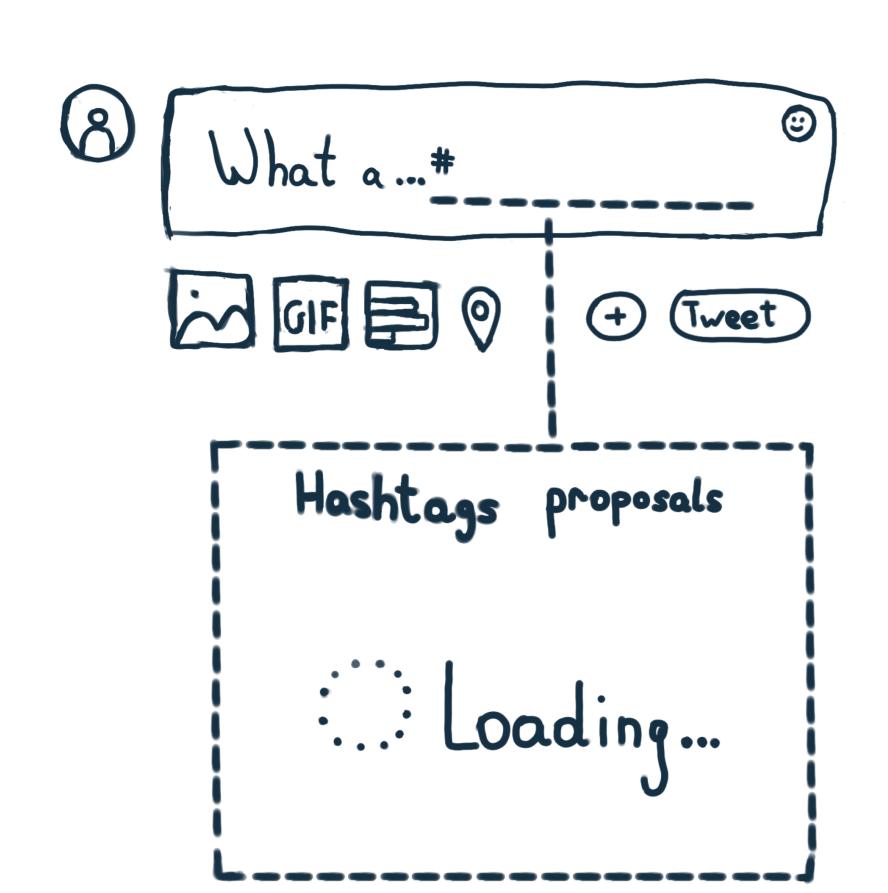
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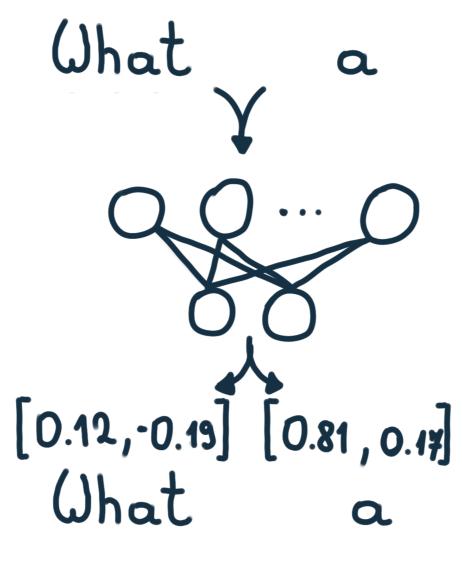


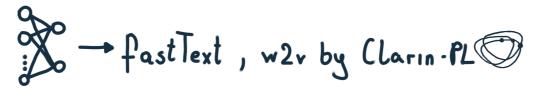




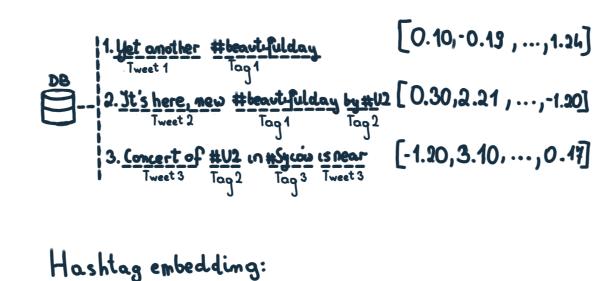






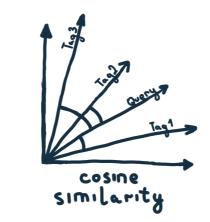


### Hashtag **Embedding**

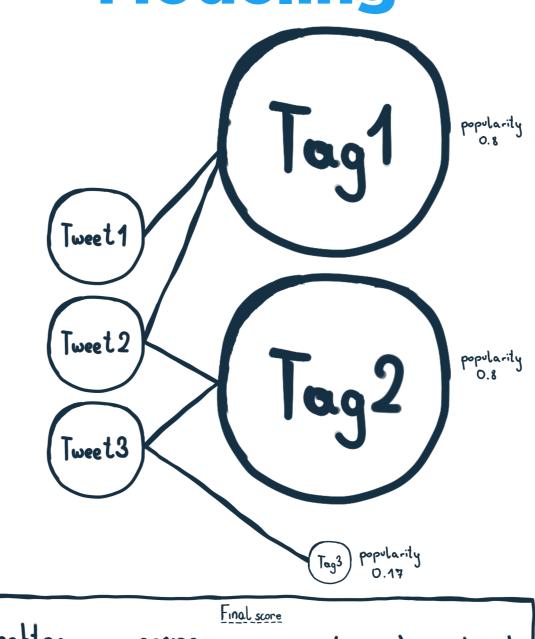


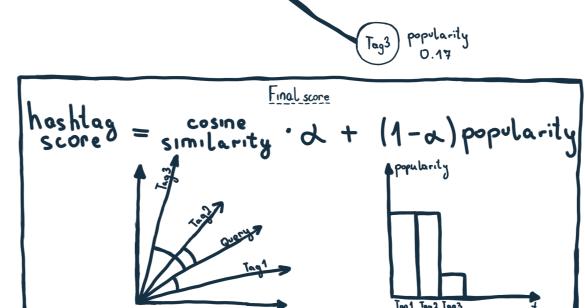
Tag1 = (Tweet 1 + Tweet 2) /2 = [0.20, 1.01, ..., 0.02] Tag 2 = (Tweet 2 + Tweet 3) /2 = [-0.45,2.66,...,-0.52] Tag 3= [-1.20,3.10,..., 0.17]

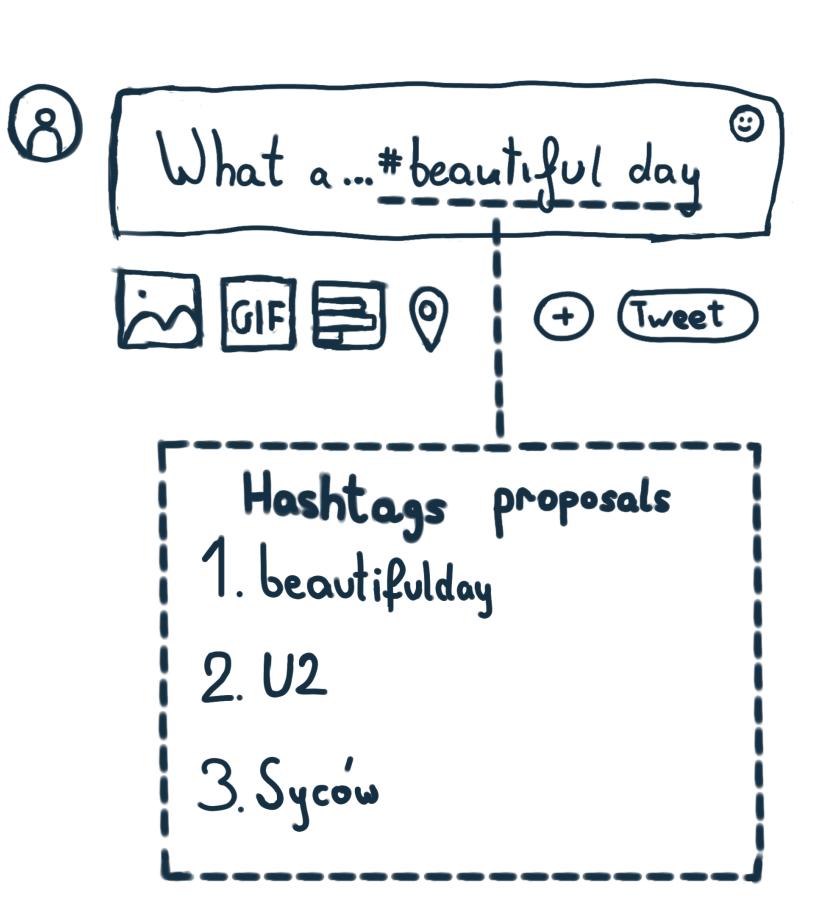
Query embedding: "What a..." =  $\frac{1}{N} \sum_{n=1}^{N} \omega \text{ ord} = [0.47, -0.01, ..., -0.11]$ 



## **Popularity** Modeling







## How did we get data?

## Some results ....

Mean Average Precision with top 5 recommendations

Our vs. baseline

Random weighted

## Nie zagłosuję na Morawieckiego! 10. 10.2018-28. 10.2018 #głosuję #PrezydentZielonejGóry 1. #WolneMiastoWarszawa #StopFakeNews Method **mAP**

~2786 50



Random uniform

0.1036

0.1527

0.0499

0.0948

Weighted

Our

Literature

Jeon M., Jun S., Hwang E. (2014) Hashtag Recommendation Based on User Tweet and Hashtag Classification on Twitter. In: Chen Y. et al. (eds) Web-Age Information Management. WAIM 2014. Lecture Notes in Computer Science, vol 8597. Springer, Cham

K. Dey, R. Shrivastava, S. Kaushik and L. V. Subramaniam, "EmTaggeR: A Word Embedding Based Novel Method for Hashtag Recommendation on Twitter," 2017 IEEE International Conference on Data Mining Workshops (ICDMW), New Orleans, LA, 2017, pp. 1025-1032. doi: 10.1109/ICDMW.2017.145

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