

# Games & Relationships

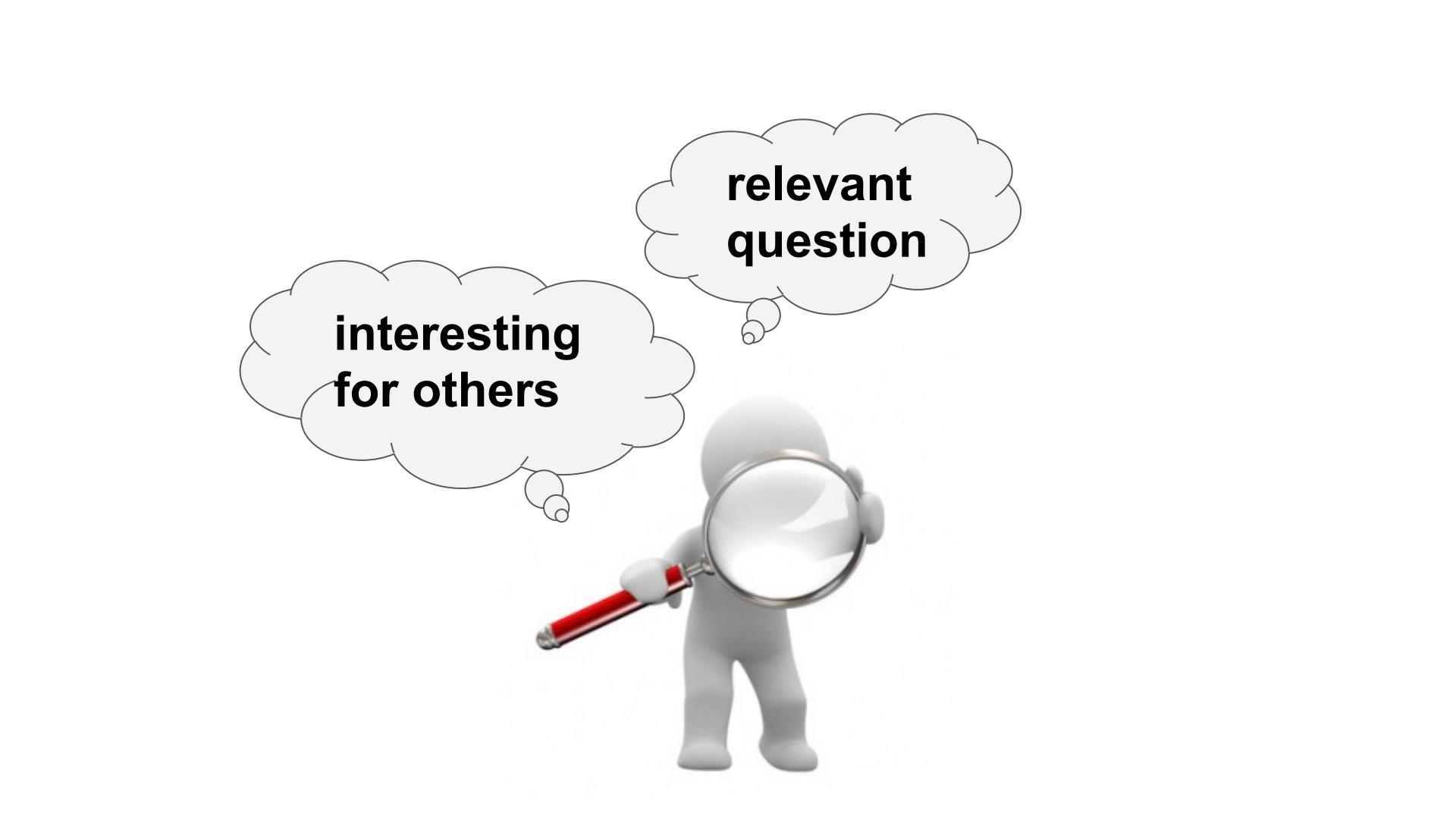
E. Grigoryev  
M. Berseneva

Moscow, 2018





**interesting  
for others**



**relevant  
question**

**interesting  
for others**



**relevant  
question**

**interesting  
for others**

**things to  
explore**



**relevant  
question**

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**relevant  
question**

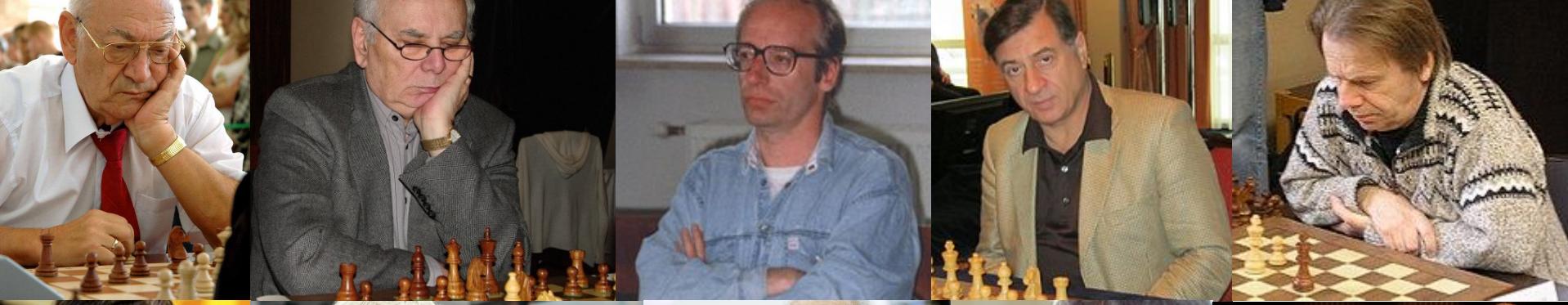
**interesting  
for others**

**things to  
explore**

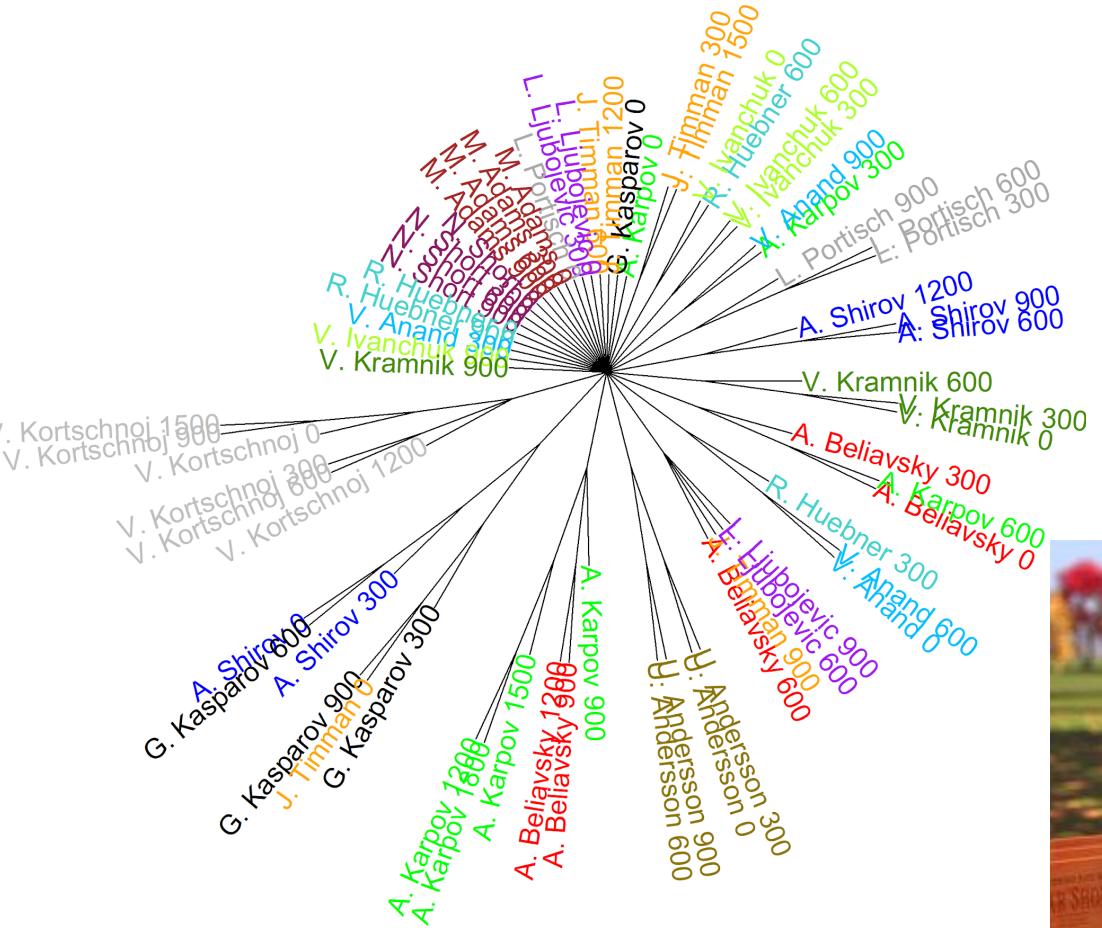
# Chess

- Is it possible for stylo to find the style of a chess player?
- DataBase from crawling [chessebook.com](http://chessebook.com) (more than **180,000** games)
- Chose 15 most frequent chess players (> **1200** games)





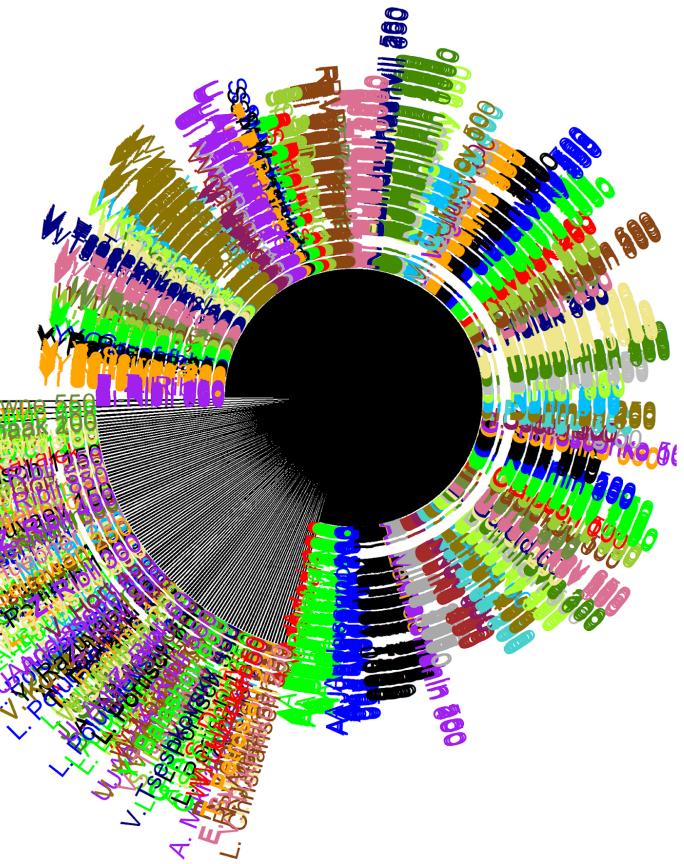
# stylo()



30-90 MFW 2-grams Culled @ 0%  
Classic Delta distance Consensus 0.5



# stylo()

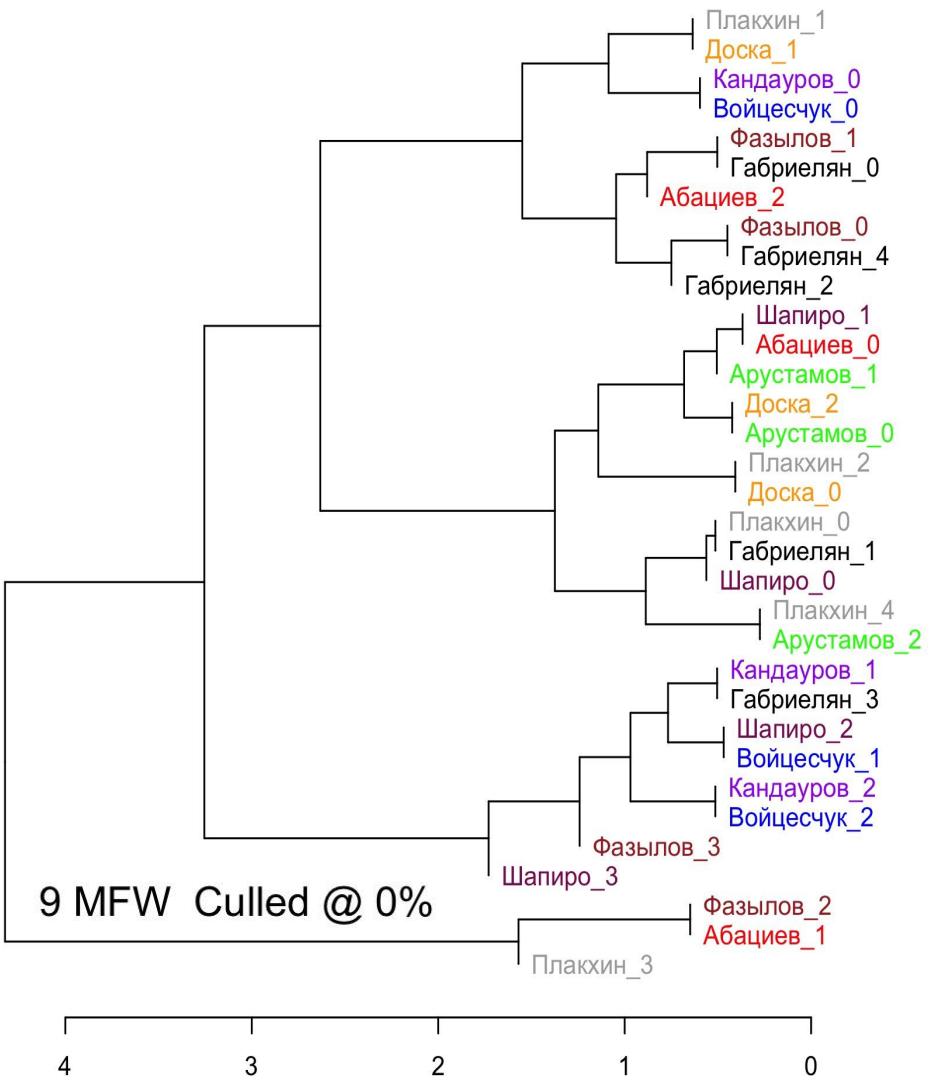


10-90 MFW 2-grams Culled @ 0%  
Classic Delta distance Consensus 0.5

# Checkers

- Is it possible for stylo to find the style of a checkers player?
- DataBase from crawling [ru64.sibhost.ru/](http://ru64.sibhost.ru/) (more than **110,000** games)
- Chose only 9 most frequent checkers players  
(> **6600** games)



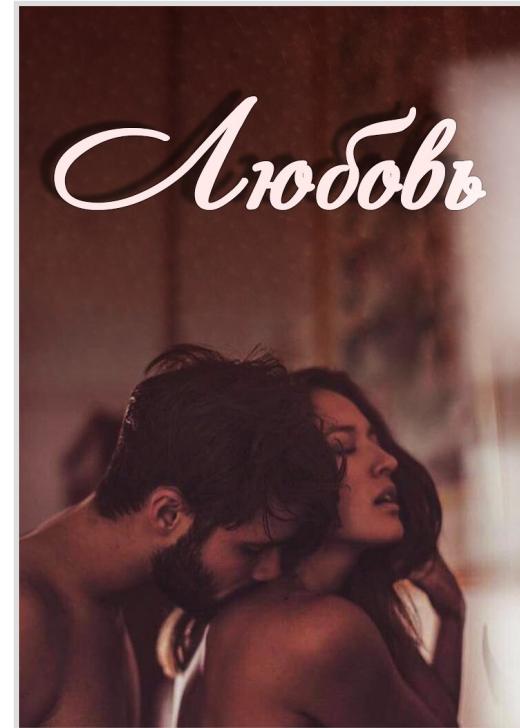


# stylo()



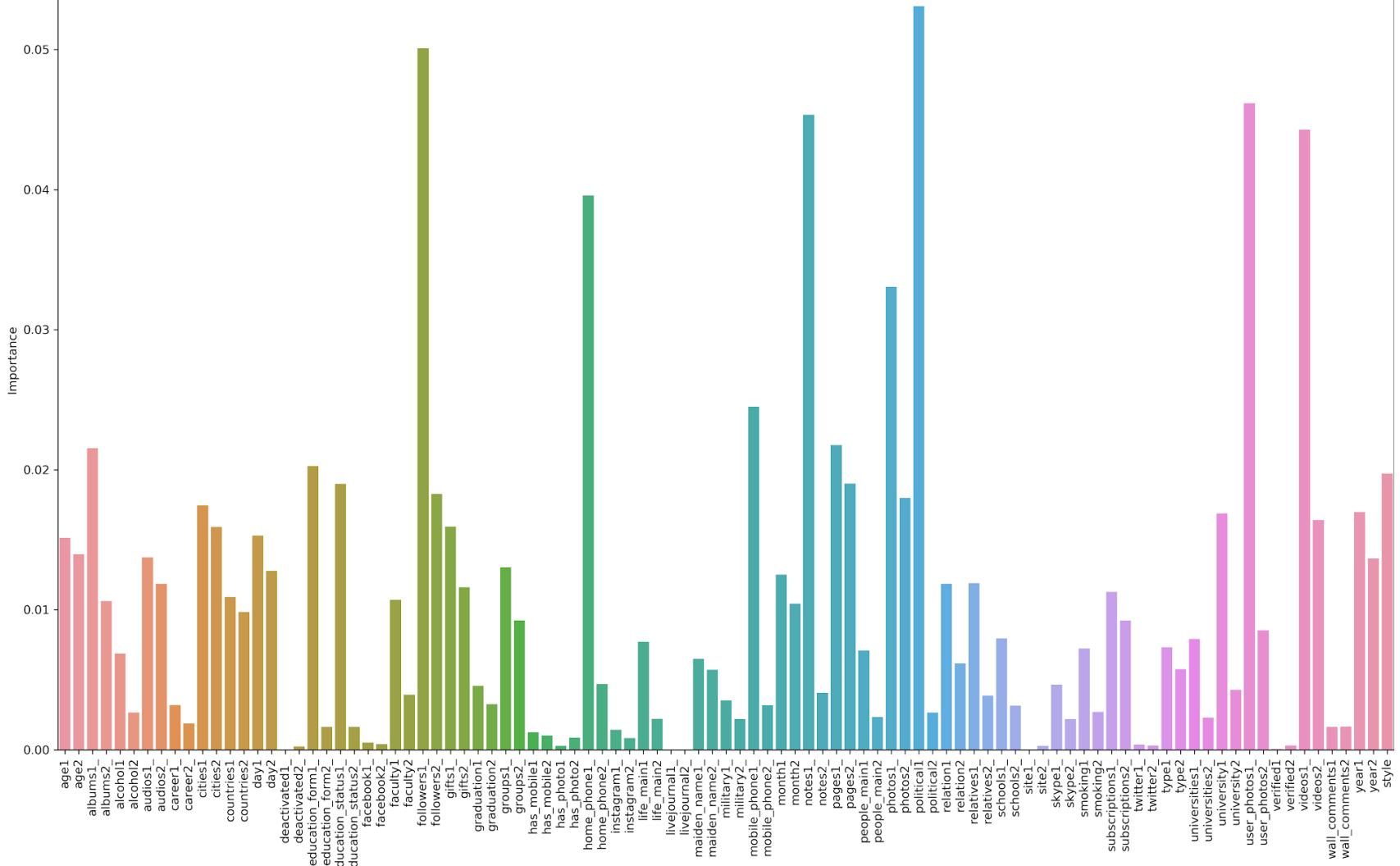
# Relations (vk.com)

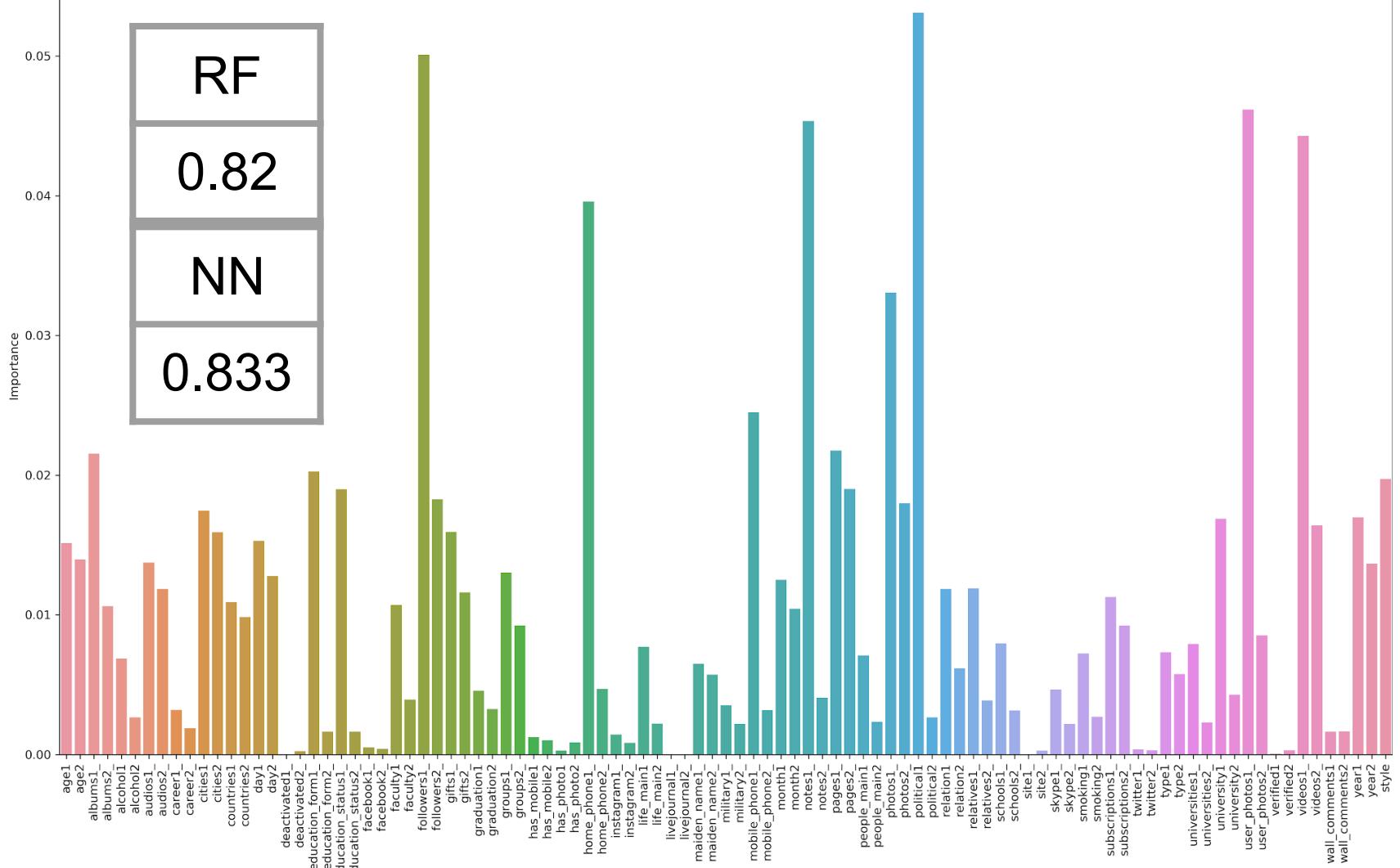
- Is it possible for Random Forest or Neural Network to predict with relatively high quality if two people are in love?
- Used public data provided by **api.vk.com**
- Found > **95,000** people in the public “ЛЮБОВЬ”
- In total > **190,000**

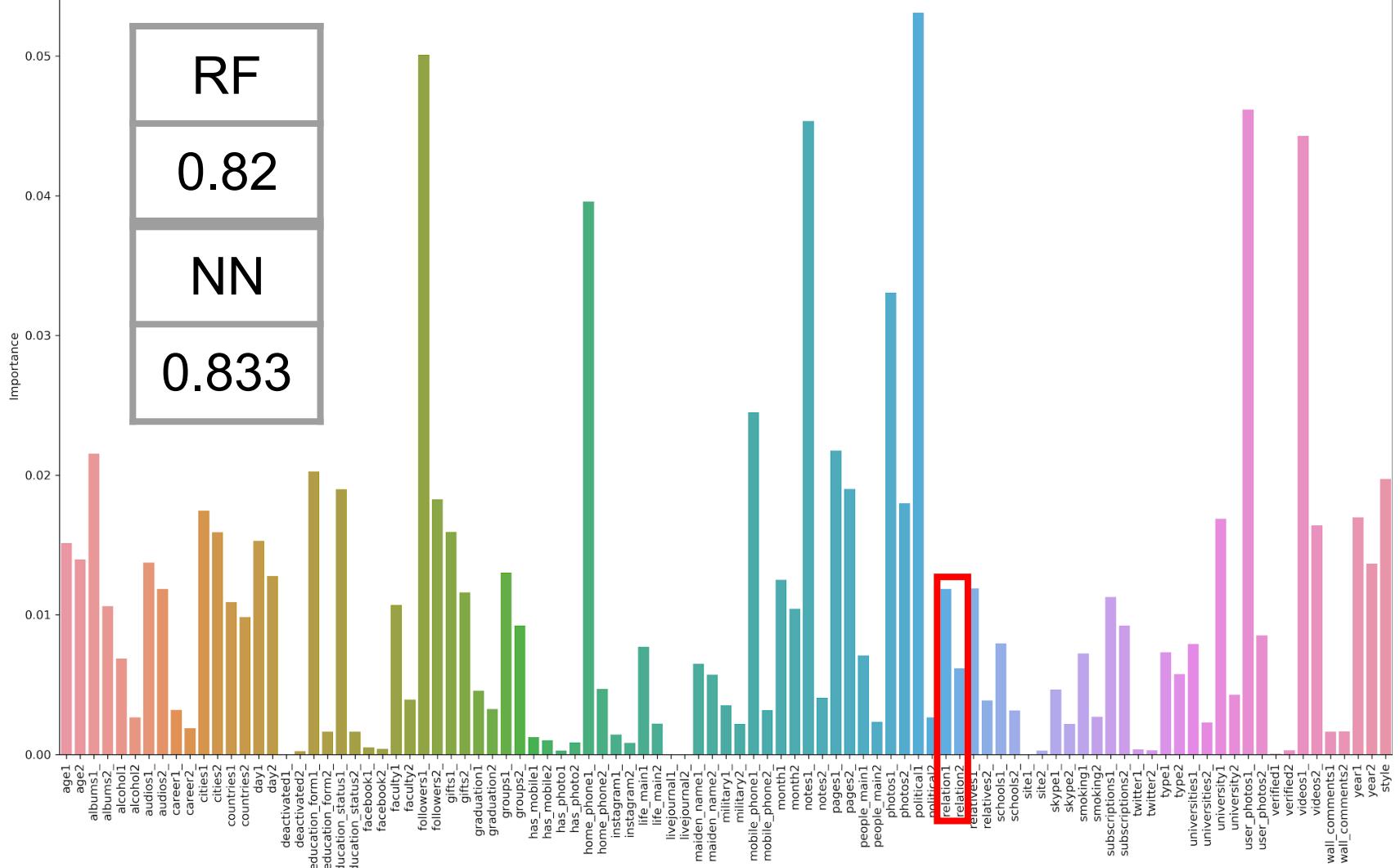


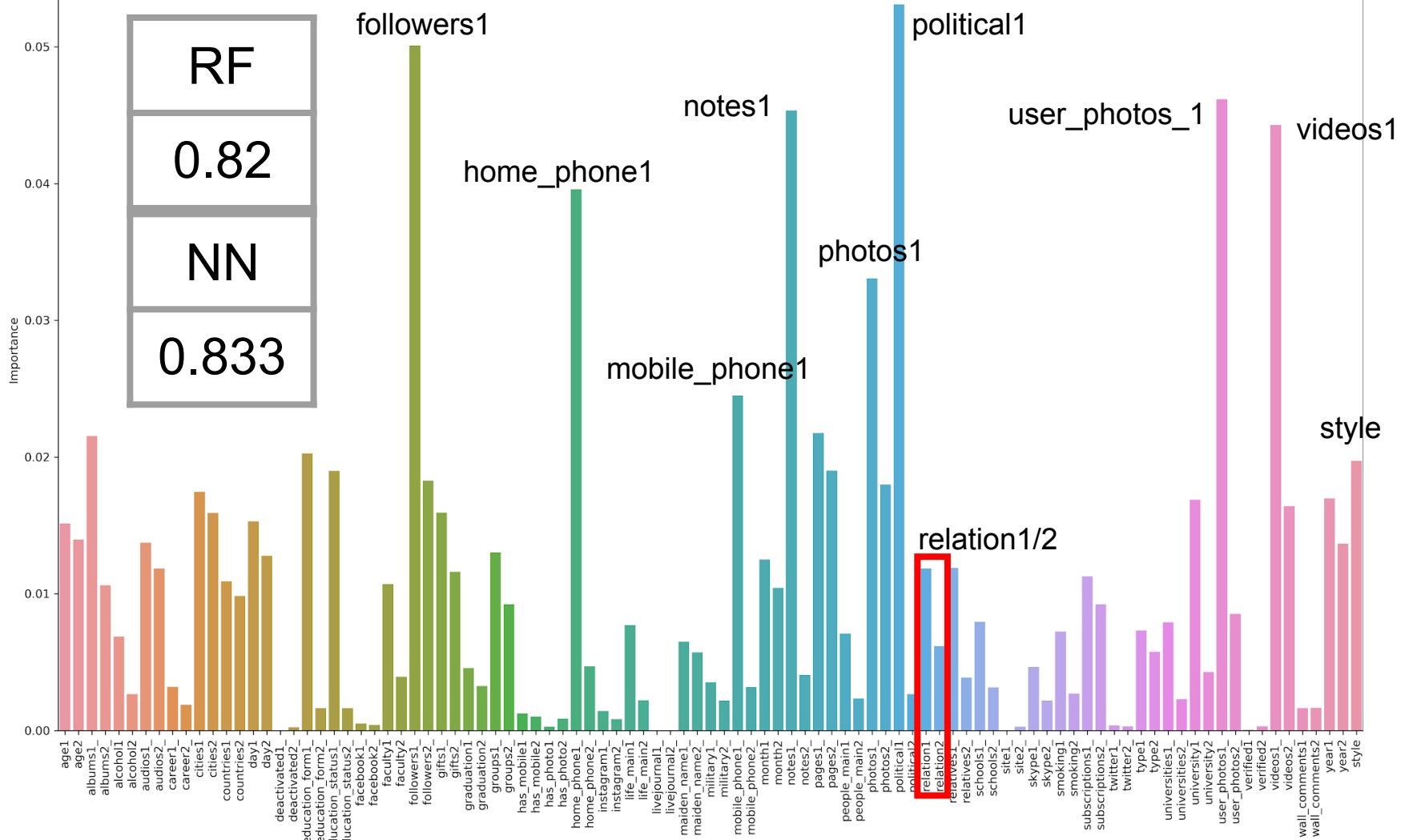
# Data preparation

- One object contains the data about two people => **classification**
- `NaN/nan/[]` → **-1**
- Some (e.g. domain) text features → **+1/0**
- Others (e.g. music) text features → two additional features (for each of two people) → cosine similarity between them
- The first **45,000** couples: target = **1**
- The second **45,000** couples → shuffling couples: target = **0**
- All the features (**98**) are scaled and numerical





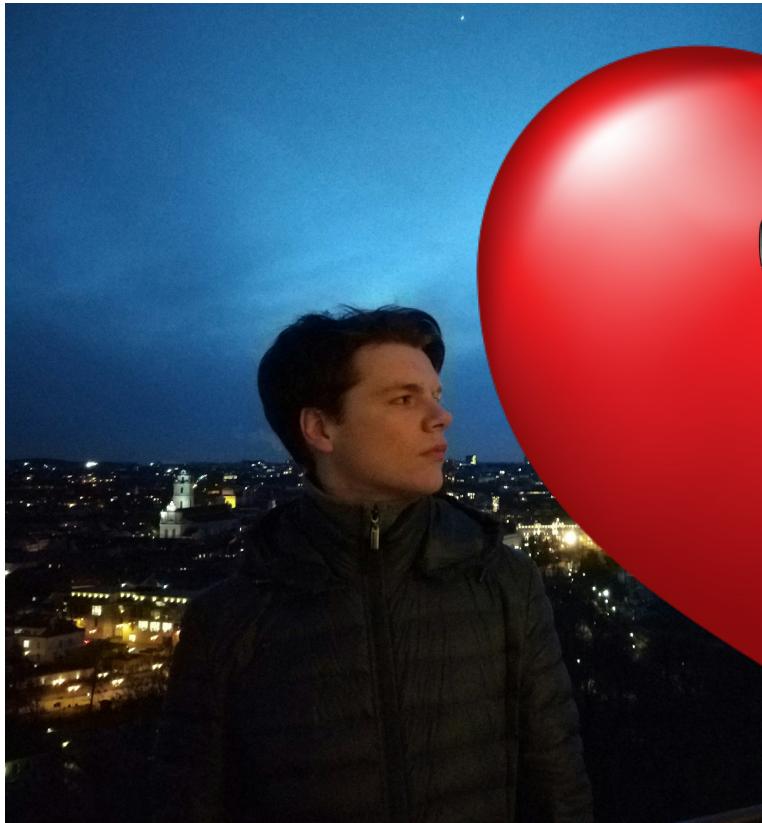




# *To ship or not to ship?*



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RF

[0.6, 0.4]



NN

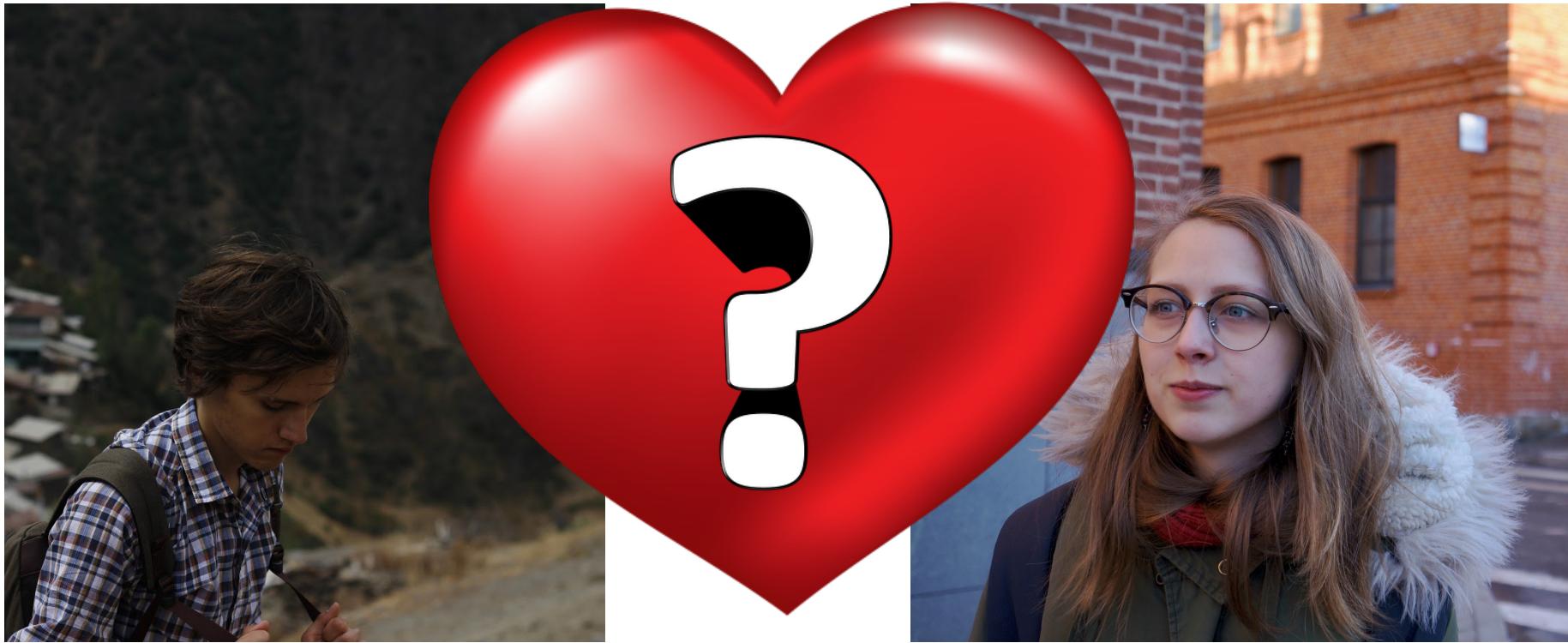
[0, 1]



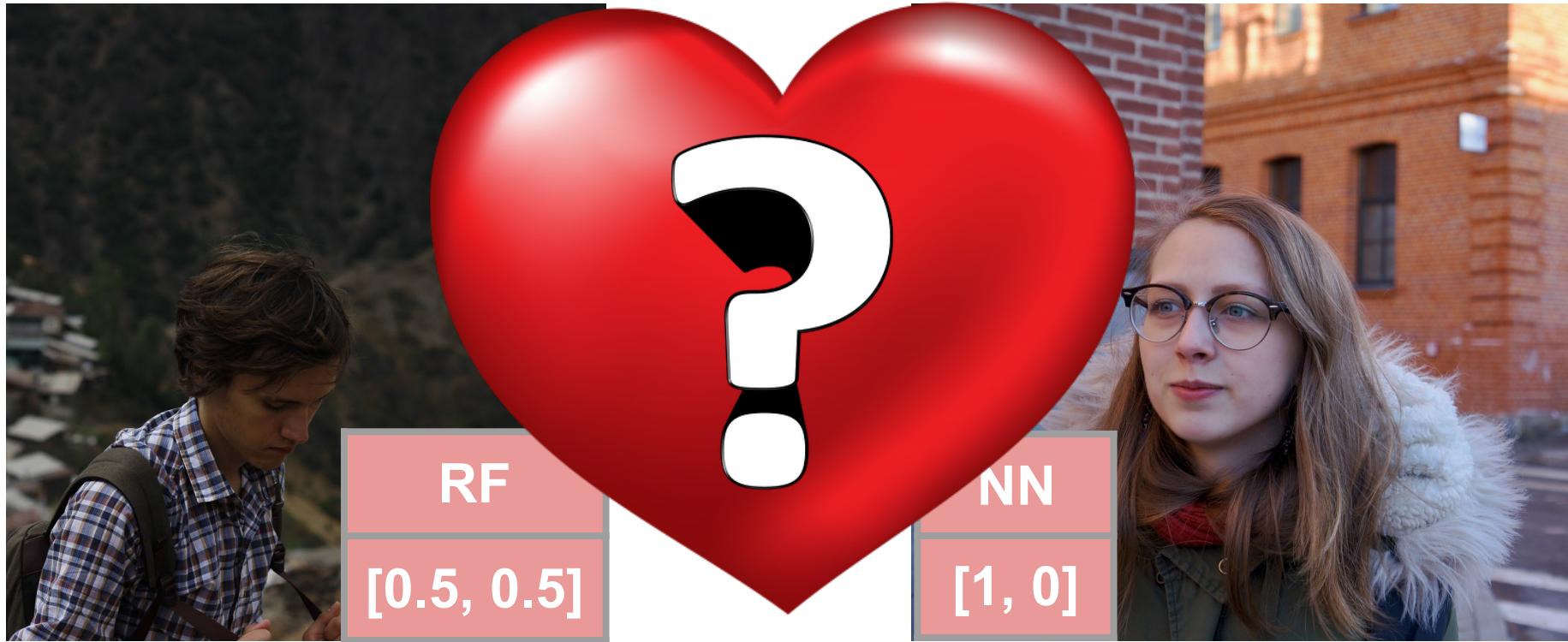
*To ship or not to ship?*



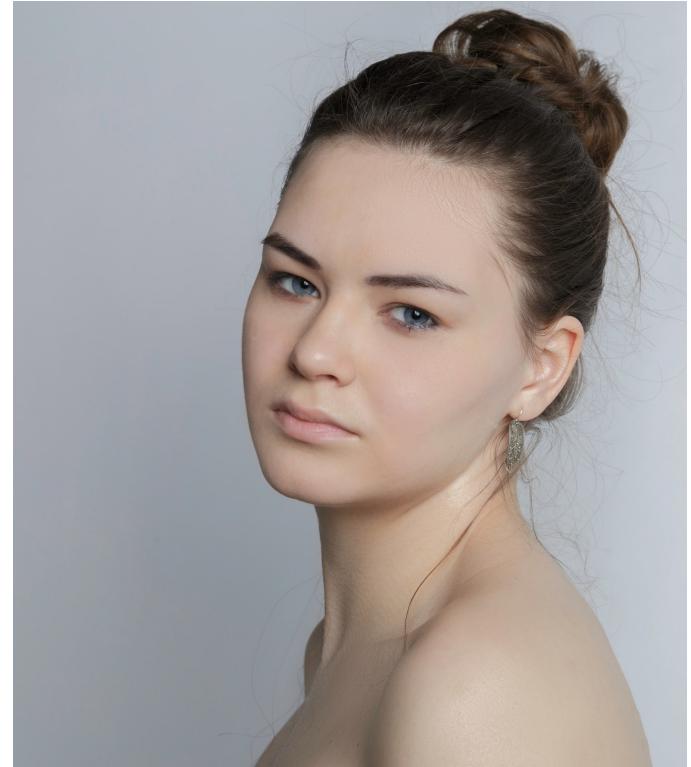
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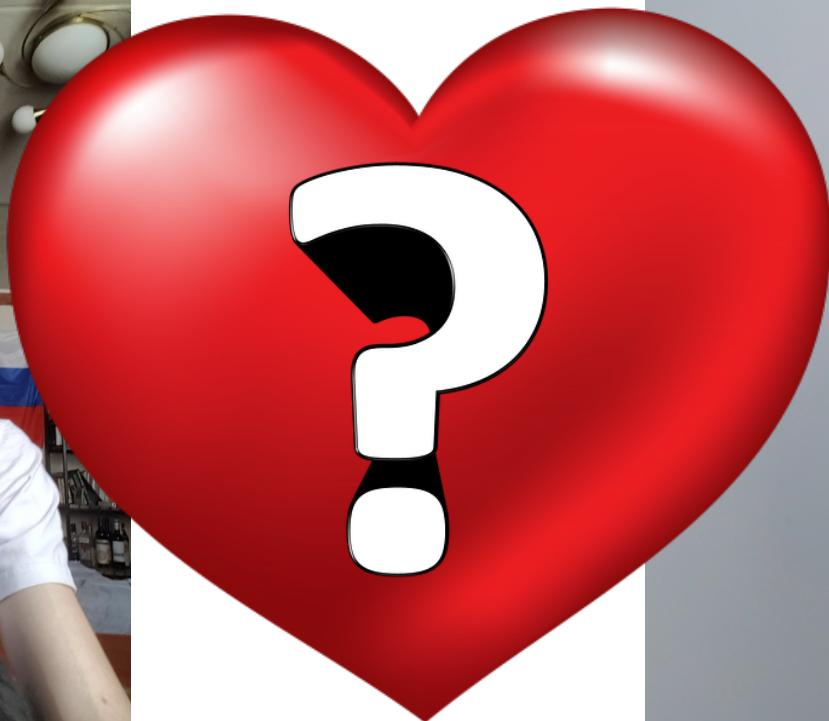
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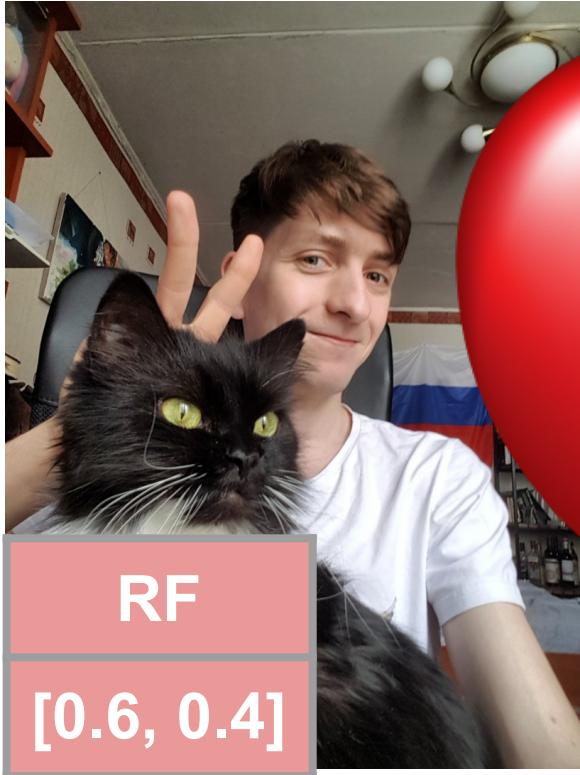
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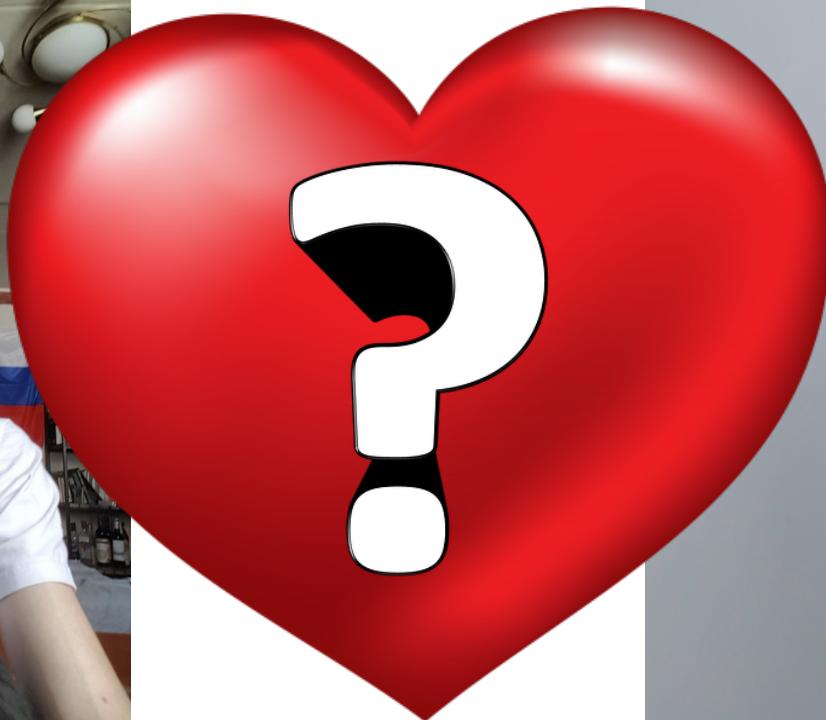


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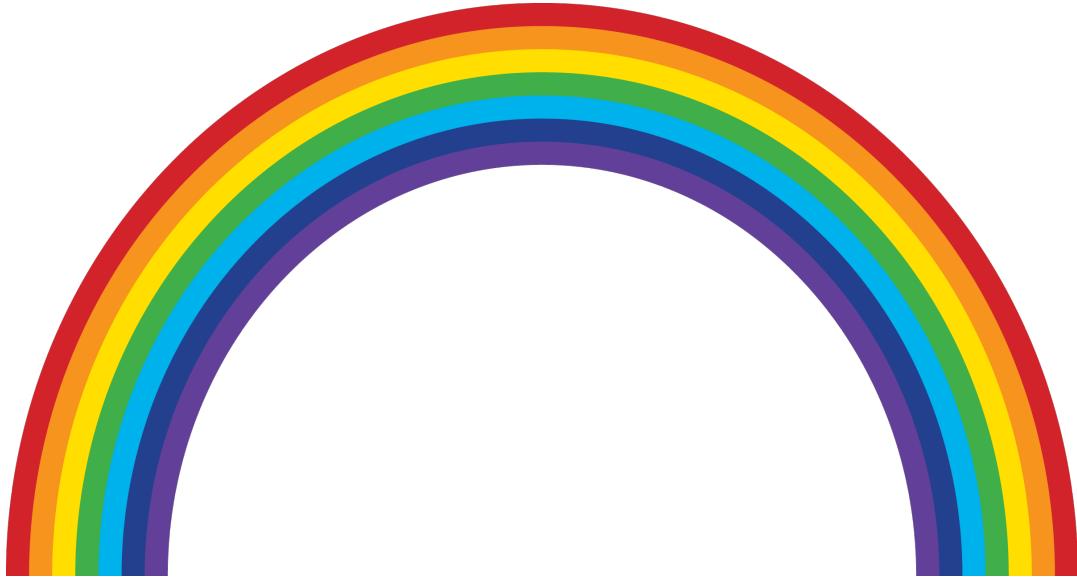
RF

[0.6, 0.4]



NN

[0, 1]



Let's make connections visible →