

Final Exam

Unsupervised Methods

Instructions

Use any **unsupervised technique** on the [speed_dating.csv](#) to discover its patterns. The dataset still contains the label.

You should:

- **Explore & preprocess the data:** *Use any visualization tool you want as well as any unsupervised method.*
- **Explain your choices:** *Why did you choose this model ? Why did you choose this number of clusters ? ...*
- **Organize your Notebook and add as many comments as needed:** *The performance of your model will be evaluated.*

Files

You should return **one file**:

- Your Notebook

Dataset Information

Attribute Information

1. gender: Gender of self
2. age: Age of self
3. age_o: Age of partner
4. d_age: Difference in age
5. race: Race of self
6. race_o: Race of partner
7. samerace: Whether the two persons have the same race or not.
8. importance_same_race: How important is it that partner is of same race?
9. importance_same_religion: How important is it that partner has same religion?
10. field: Field of study
11. pref_o_attractive: How important does partner rate attractiveness
12. pref_o_sincere: How important does partner rate sincerity
13. pref_o_intelligence: How important does partner rate intelligence
14. pref_o_funny: How important does partner rate being funny
15. pref_o_ambitious: How important does partner rate ambition
16. pref_o_shared_interests: How important does partner rate having shared interests
17. attractive_o: Rating by partner (about me) at night of event on attractiveness
18. sincere_o: Rating by partner (about me) at night of event on sincerity
19. intelligence_o: Rating by partner (about me) at night of event on intelligence
20. funny_o: Rating by partner (about me) at night of event on being funny

21. ambitious_o: Rating by partner (about me) at night of event on being ambitious
22. shared_interests_o: Rating by partner (about me) at night of event on shared interest
23. attractive_important: What do you look for in a partner - attractiveness
24. sincere_important: What do you look for in a partner - sincerity
25. intelligence_important: What do you look for in a partner - intelligence
26. funny_important: What do you look for in a partner - being funny
27. ambition_important: What do you look for in a partner - ambition
28. shared_interests_important: What do you look for in a partner - shared interests
29. attractive: Rate yourself - attractiveness
30. sincere: Rate yourself - sincerity
31. intelligence: Rate yourself - intelligence
32. funny: Rate yourself - being funny
33. ambition: Rate yourself - ambition
34. attractive_partner: Rate your partner - attractiveness
35. sincere_partner: Rate your partner - sincerity
36. intelligence_partner: Rate your partner - intelligence
37. funny_partner: Rate your partner - being funny
38. ambition_partner: Rate your partner - ambition
39. shared_interests_partner: Rate your partner - shared interests
40. sports: Your own interests [1-10]
41. tvsports
42. exercise
43. dining
44. museums
45. art
46. hiking
47. gaming
48. clubbing
49. reading
50. tv
51. theater
52. movies
53. concerts
54. music
55. shopping
56. yoga
57. interests_correlate: Correlation between participant's and partner's ratings of interests.
58. expected_happy_with_sd_people: How happy do you expect to be with the people you meet during the speed-dating event?
59. expected_num_interested_in_me: Out of the 20 people you will meet, how many do you expect will be interested in dating you?
60. expected_num_matches: How many matches do you expect to get?
61. like: Did you like your partner?
62. guess_prob_liked: How likely do you think it is that your partner likes you?
63. met: Have you met your partner before?
64. decision: Decision at night of event.

65. decision_o: Decision of partner at night of event.

Label:

1. match: Match (yes/no)