mlcourse.ai. Assignment #3 (demo)

总分 10/10

Decision trees with a toy task and the UCI Adult dataset.

✓ 3.1. What is the entropy S0 of the initial system? * 1/1

- [ ] 0.966
- [x] 0.985 ✓
- [ ] 0.885
- [ ] 0.764

✓ 3.2. Let's split the data with a feature "Looks_handsome". What is the entropy S1 of the left group - the one with "Looks_handsome". What is the entropy S2 in the opposite group? What is information gain (IG) if we consider such a split? * 2/2

- [ ] S1 = 0.967
- [x] S2 = 0.918 ✓
- [x] IG = 0.128 ✓
- [x] S1 = 0.811 ✓
- [ ] S2 = 0.826
- [ ] IG = 0.178

✓ 3.3. What is the entropy of a state given by a list balls_left? * 2/2

- [x] 0.961 ✓
- [ ] 0.852
- [ ] 0.975
- [ ] 0.991

✓ 3.4. What is the entropy of a fair dice? (where we look at a dice as a system with 6 equally probable states) * 1/1

- [ ] 0
- [ ] 1
- [x] 2.585 ✓
- [ ] 3.125
- [ ] 0.167

✓ 3.5. What is the information gain of splitting the initial dataset into balls_left and balls_right? * 2/2

- [ ] 0.182
- [ ] 0.175
- [x] 0.161 ✓
- [ ] 0.158

✓ 3.6. What is the test set accuracy of a decision tree with maximum tree depth of 3 and random_state = 17? * 1/1

- [ ] 0.895
- [ ] 0.856
- [ ] 0.788
- [x] 0.845 ✓

✓ 3.7. What is the test set accuracy of a decision tree with maximum tree depth of 9 and random_state = 17? * 1/1

- [ ] 0.91
- [ ] 0.859
- [x] 0.848 ✓
- [ ] 0.791

Do you have any remarks concerning the assignment? In case of apparent errors/typos please use GitHub Issues and/or Pull Requests (https://github.com/Yorko/mlcourse.ai).