

Artificial Intelligence: Homework 7

Due on 10-8, 2019 at 10:00pm

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Problem 1

use numpy to realize the iteration of EM on PLSA and give the test answer. Return the top 5 key words of the 5 different topics.

Critical Function

np:

np.random.random

np.linalg.norm: regularize

np.matmul

np.einsum

np.argwhere

np.argmaxpartition

np.loadtxt

json:

json.load

Result

after 1000 rounds

Output:

The top 5 words for topic 0: christian, god, thi, peopl, edu

The top 5 words for topic 1: edu, thi, year, game, write

The top 5 words for topic 2: wire, thi, ground, edu, power

The top 5 words for topic 3: thi, edu, mac, appl, problem

The top 5 words for topic 4: edu, gun, thi, peopl, write