Movie Recommendation System

With Data Analysis and TFIDF

AI CLUB AT MSU

Happy Valentine’s Day!

Looking for the perfect date night movie?

Tired of Googling ratings and genre?

We got you covered

Whether they like horror, romance, action, or something based off of another movie, you can find ‘the one’ using your very own movie recommendation system

TF-IDF

Term frequency,
Inverse document frequency

This woman learned TF-IDF and then found love in the metaverse, apparently.

Movie Description		
“A beautiful love story between a cat and a dog.”		
“Two cute forest deer fall in love.”		
“A brutal murder goes unsolved for a decade.		

Movie Description	“love”	
“A beautiful love story between a cat and a dog.”		
“Two cute forest deer fall in love.”		
“A brutal murder goes unsolved for a decade.		

Movie Description	“love”	
“A beautiful **love** story between a cat and a dog.”	1	
“Two cute forest deer fall in love.”		
“A brutal murder goes unsolved for a decade.		

Movie Description	“love”	
“A beautiful **love** story between a cat and a dog.”	1	
“Two cute forest deer fall in **love**.”	1	
“A brutal murder goes unsolved for a decade.		

Movie Description	“love”	
“A beautiful **love** story between a cat and a dog.”	1	
“Two cute forest deer fall in **love**.”	1	
“A brutal murder goes unsolved for a decade.	0	

Movie Description	“love”	“a”
“A beautiful **love** story between a cat and a dog.”	1	
“Two cute forest deer fall in **love**.”	1	
“A brutal murder goes unsolved for a decade.	0	

Movie Description	“love”	“a”
“A beautiful love story between a cat and a dog.”	1	3
“Two cute forest deer fall in love.”	1	
“A brutal murder goes unsolved for a decade.	0	

Movie Description	“love”	“a”
“A beautiful love story between a cat and a dog.”	1	3
“Two cute forest deer fall in love.”	1	0
“A brutal murder goes unsolved for a decade.	0	

Movie Description	“love”	“a”
“A beautiful love story between a cat and a dog.”	1	3
“Two cute forest deer fall in love.”	1	0
“A brutal murder goes unsolved for a decade.	0	2

Movie A
Movie B
“love”
“a”
“cat”
1
0.1
1
1
0.2
0
1
0.02
0
1.02 (Similarity)

Similarity Matrix

		Movie A	Movie B	Movie C	Movie D
Movie A		1	0.7	0.1	0.2
Movie B		0.7	1	0.3	0.2
Movie C		0.1	0.3	1	0.9
Movie D		0.2	0.2	0.9	1