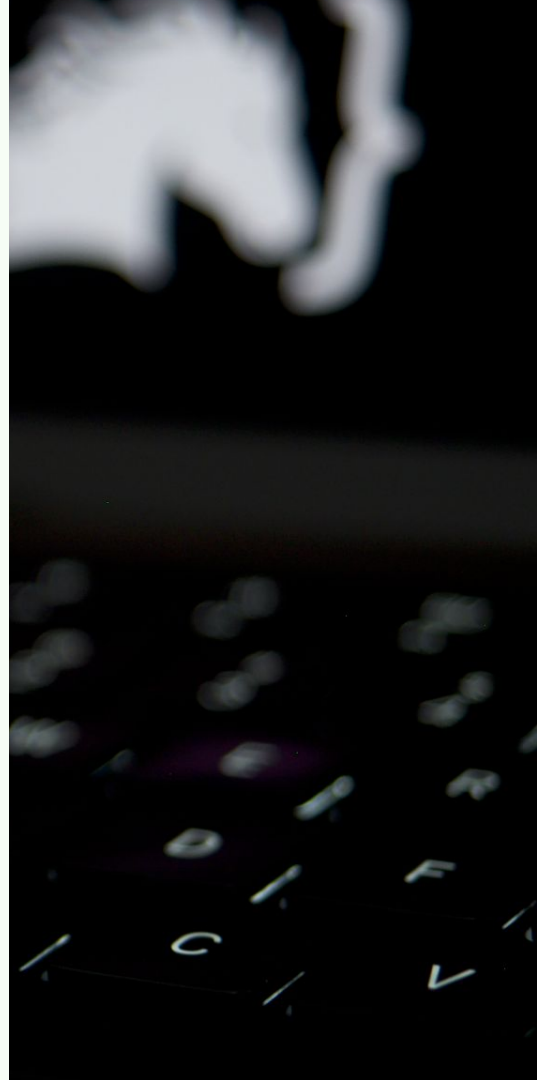
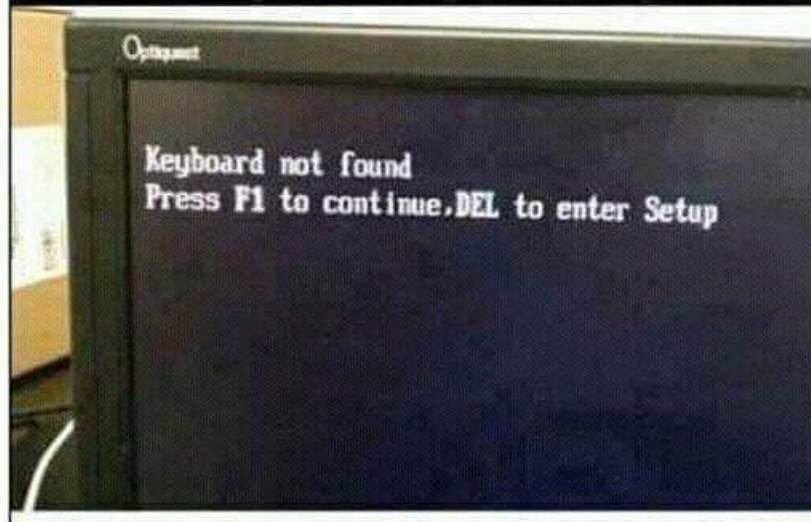




# Welcome!

GM **#11** | HHS CS



# > Sentiment Analysis



**Recommended**

298.7 hrs on record

POSTED: 10 MAY, 2016

You can do everything you can't do in real life, like casting magic and talking to girls

Was this review helpful?



Yes



No



## Steam



**Captain Falric**

47 products in account  
12 reviews



**Not Recom...**

24.7 hrs on record

Posted: 2 December, 2015

my grandpa runs faster than this game



**> What are some words you might see in a positive or negative review?**





> If a review has the words “boring”, “terrible”, “slow” and “expensive”, would the review be positive or negative?

## > Bag-of-words model

Art exhibit at  
Carnegie Mellon



I love this movie! It's sweet, but with satirical humor. The dialogue is great and the adventure scenes are fun... It manages to be whimsical and romantic while laughing at the conventions of the fairy tale genre. I would recommend it to just about anyone. I've seen it several times, and I'm always happy to see it again whenever I have a friend who hasn't seen it yet!



it	6
I	5
the	4
to	3
and	3
seen	2
yet	1
would	1
whimsical	1
times	1
sweet	1
satirical	1
adventure	1
genre	1
fairy	1
humor	1
have	1
great	1

... ...

> CoLab Activity

Hhscs.club



## > MultiLabelBinarizer

Review 1: "I really like this game"

Review 2: "I really hate this game"



## > MultiLabelBinarizer

**Review 1: “I really like this game”**

**Review 2: “I really hate this game”**

	I	Really	Like	Hate	This	Game
Review 1	1	1	1	0	1	1
Review 2	1	1	0	1	1	1

## > MultiLabelBinarizer

**Review 3: “I really really like this game”**

**Review 4: “This game is terrible. I really don’t like it.”**

	I	Really	Like	Hate	This	Game
Review 3						
Review 4						

## > MultiLabelBinarizer

**Review 3: “I really really like this game”**

**Review 4: “This game is terrible. I really don’t like it.”**

	I	Really	Like	Hate	This	Game
Review 3	1	1	1	0	1	1
Review 4	1	1	1	0	1	1



# > MultinomialNB

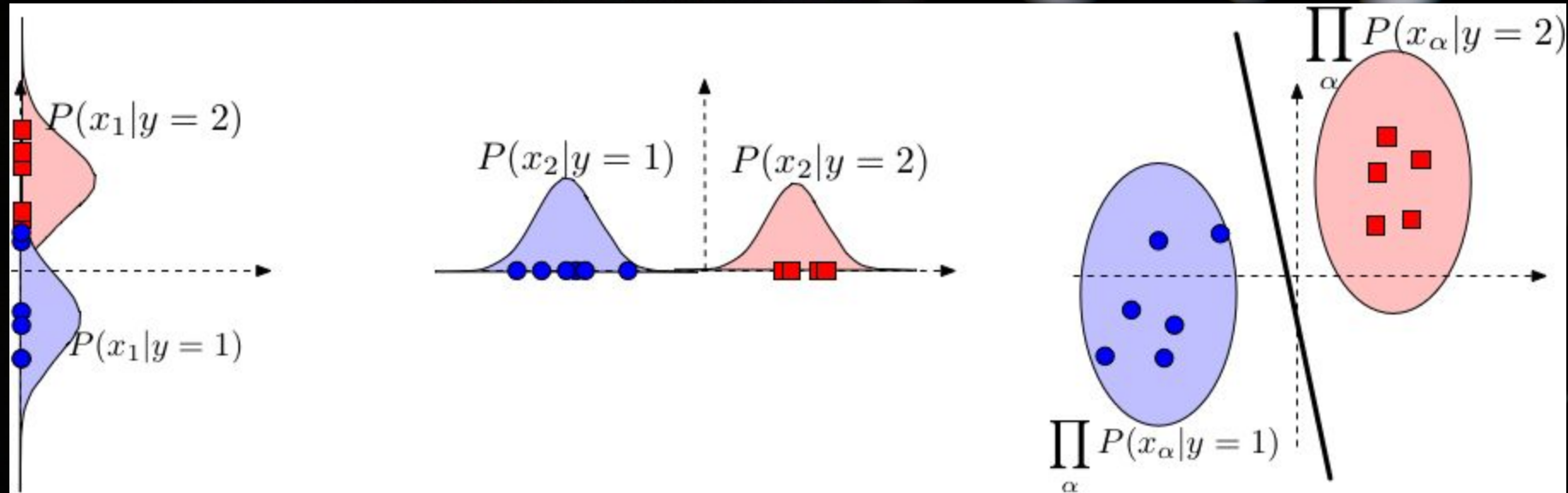
## > Naïve Bayes Algorithm

$$P(A|B) = \frac{P(B|A) \cdot P(A)}{P(B)}$$

Diagram illustrating the Naïve Bayes formula with annotations:

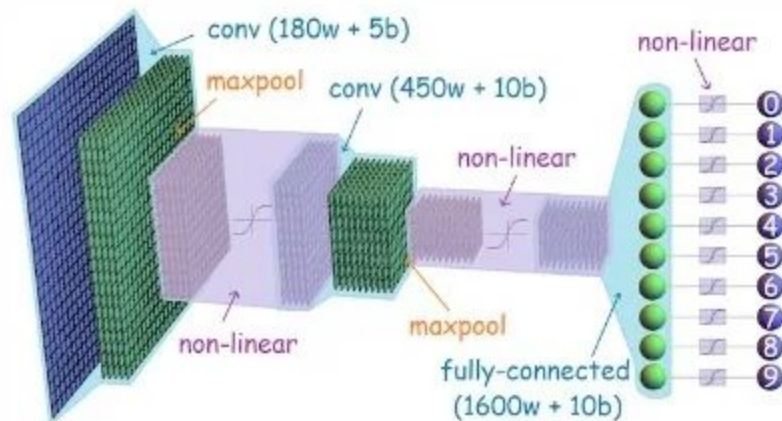
- $P(A|B)$ : Probability of A occurring given evidence B has already occurred
- $P(B|A)$ : Probability of B occurring given evidence A has already occurred
- $P(A)$ : Probability of A occurring
- $P(B)$ : Probability of B occurring

# > Naïve Bayes Algorithm



# WHO WOULD WIN?

**AN INCREDIBLY COMPLEX  
MULTI-LAYER CONVOLUTIONAL  
NEURAL NETWORK**



**ONE NAIVE BOI**







**> How can we make this model better?**

## > Words are diverse

Remove stopwords (words that don't add information)

- How, he, because, down, an

Perform stemming

- Play, Played, Playing, Plays => Play

Remove punctuation

- .,!?‘

## > Test on some Steam reviews

62 of 63 people (98%) found this review helpful



**Recommended**

29.7 hrs on record

Walked into a room on a night sever, in which 2 guys with no pants proceeded to beat me over the head with shovels, Chanting tribe chants.



**Tavsiye Ediliyor**

KAYITINDA 46.5 saat

YAYINLANMA: 14 NİSAN 2015

I saw a dog that looked more realistic than my actual real dog. 10/10



**Not Recommended**

120.9 hrs on record

**EARLY ACCESS REVIEW**

POSTED: 23 MAY 2015

The actual zombie apocalypse will happen before this game is done



**Not Recommended**

0.4 hrs on record

Posted: 26 September, 2014

This was recommended to me and I now have trust issues.

## > Socials

**Website:** [hhscs.club](https://hhscs.club)

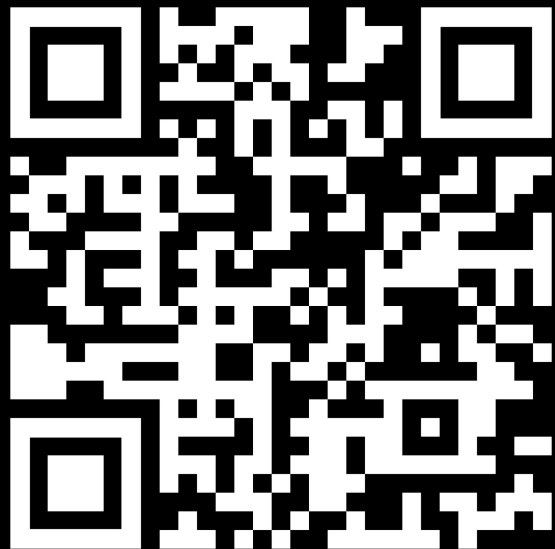
**Email List:**



**Insta:**

[@hhscomputerscience](https://www.instagram.com/hhscomputerscience)

**Discord:**







Next Meeting:  
Tuesday (12/5) Lunch