boom

Final Projects

Sketchy, Pacman, Othello & Indy

What are the CS15 final projects?

- Final chance to show off and develop your Object-Oriented Programming skills with a large individual program!
- 25% of your final grade
- Like all other projects, you ***must*** meet Minimum Functionality on the Final Project to pass the course

Logistics

- **All final projects will be completed individually**
- There are 4 Final Project options for you to choose from
- We've divided our TA staff among the projects; each project will have their own TA hours schedule
- Starting early is CRUCIAL! The average student reports ~40-50 hours
- You **cannot** use late days on this assignment; if you submit past the on-time handin, you will get an 8% deduction

Timeline

- Today, November 16th.....FPs released
- Saturday, November 18th @ 1PM ET.....Virtual FP Help Sessions
- Saturday, November 18th @ 11:59PM ET.....FP Declaration Form due
- Sunday, December 3rd, @ 10:00PM ET.....Code checkpoint due
  - Must come to Conceptual Hours to be checked off for your FP-specific code checkpoint
- Sunday, December 10th @ 11:59PM ET.....Early handin deadline
- Tuesday, December 12th @ 11:59PM ET.....On-time handin deadline
- Thursday, December 14th @ 5PM ET.....Late handin deadline
  - the late deadline should only be used if you need to meet MF. You will lose -8% of your grade if you submit on the late deadline, you may NOT use late days for the final project
  - If you haven't submitted anything by 5PM on Dec 14th, you will NC the course

Final Project Options

- Sketchy — Graphical editing program
- Othello — Human and AI Othello board game simulation
- Pacman — Classic Pacman arcade game
- Indy — DIY Final Project

“Dumping on other projects is key. They have to be vicious.” -avd

Let the roasts commence!

Sketchy

SKETCHY!
THE Best FP!
Select Shape
Fill
Delete
Operations
Undo
Sarah O
Francesca
Sherry
Cindy
Grace
Emily O
Will
Kanayo
Orlando
Xiaoyue
Ethan
Astrid
Emily H
Emily W

VISA-core

Couldn’t get in? make it yourself!

Missing MS paint? make it yourself!

RISD degree? make it yourself!

RHODE·ISLAND·SCHOOL·OF·DESIGN·:1877:

RISD

logovaults

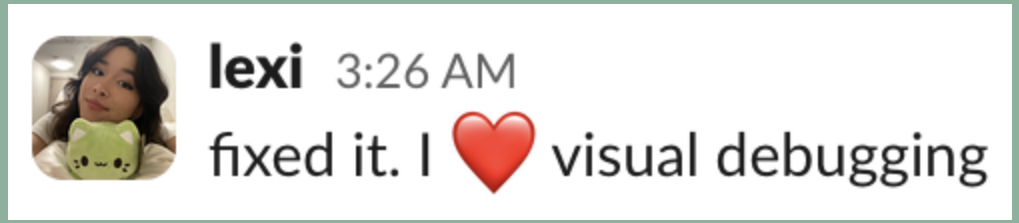
Unleash your inner artist!

Ad[illegible] Photoshop

Sketchy

Why Sketchy?

Easy! to test!

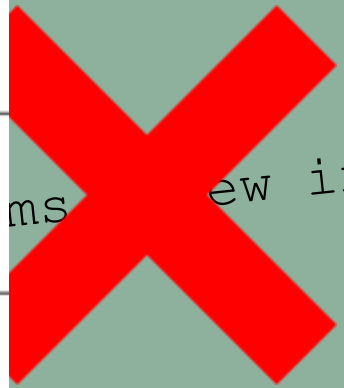


You want to waste time learning how to PLAY?

Brown · 1w
I thought this was t
that's the real devil
Brown · 1w
Me and the DEVIL
TO
104
SKETCHY!
Drawing Options
Select Shape
Draw with Pen
Draw Rectangle
Draw Ellipse
Set the Color
Black
Shape Actions
Fill
Delete
Raise
Lower
Operations
Undo
Redo
Save
Load
SKETCHY
ons
rImpl.java:769)
va:326)
) <1 internal line>
a:294)
va:95)
u!

Why Sketchy?

You never have to use 2D Arrays again. EVER.*



ms ew int[10][10]

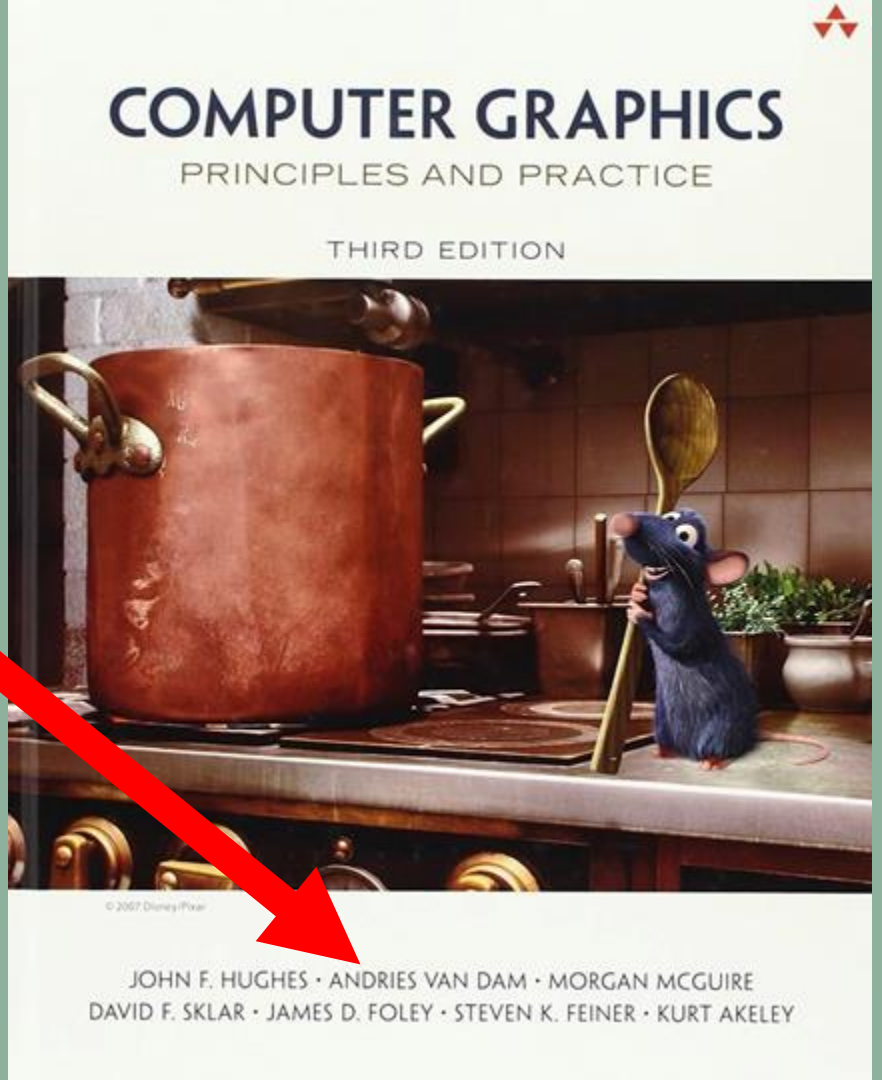
We can't actually guarantee that you'll never use them again in your life. Sorry.

Why

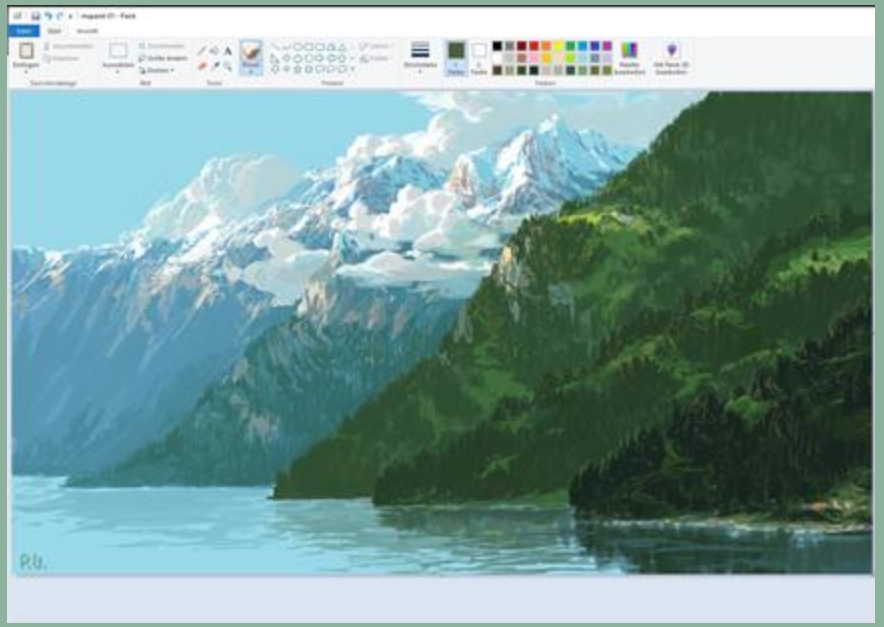
Why Sketchy?

It's Andy's Favorite FP!

source : Man invented computer graphics, you're saying he won't love painting with a computer?



The Made in Sketchy Gallery



SAY IT AGAIN, DEXTER
"The feminine urge to just
PICK SKETCHY
ANDY'S FAVORITE FP
imgflip.com

👎Indy?👎

INDY
STUDENTS
WRITING
THEIR PROPOSALS

ME SHOWING UP TO
DEBUGGING FOR THE 1000TH TIME
imgflip.com

😖 Pacman? 😫

2d arrays? You still on that? boooo

BFS??? more like **B**ar**F** **S**ounds... it's not even real AI

Ghosts? Halloween was last month - past tense

Where's the originality? The creativity?

sarah o 11:03 PM

"I understand drawing apps on a deep and fundamental level" - lexi

1 reply 15 hours ago

sarah o

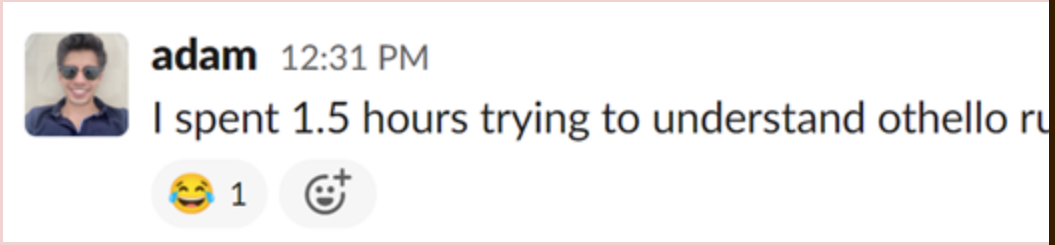
(she sup

PACK IT UP MAN
wrong direction
sidechat
imgflip

Othello: It's a real tragedy 😔

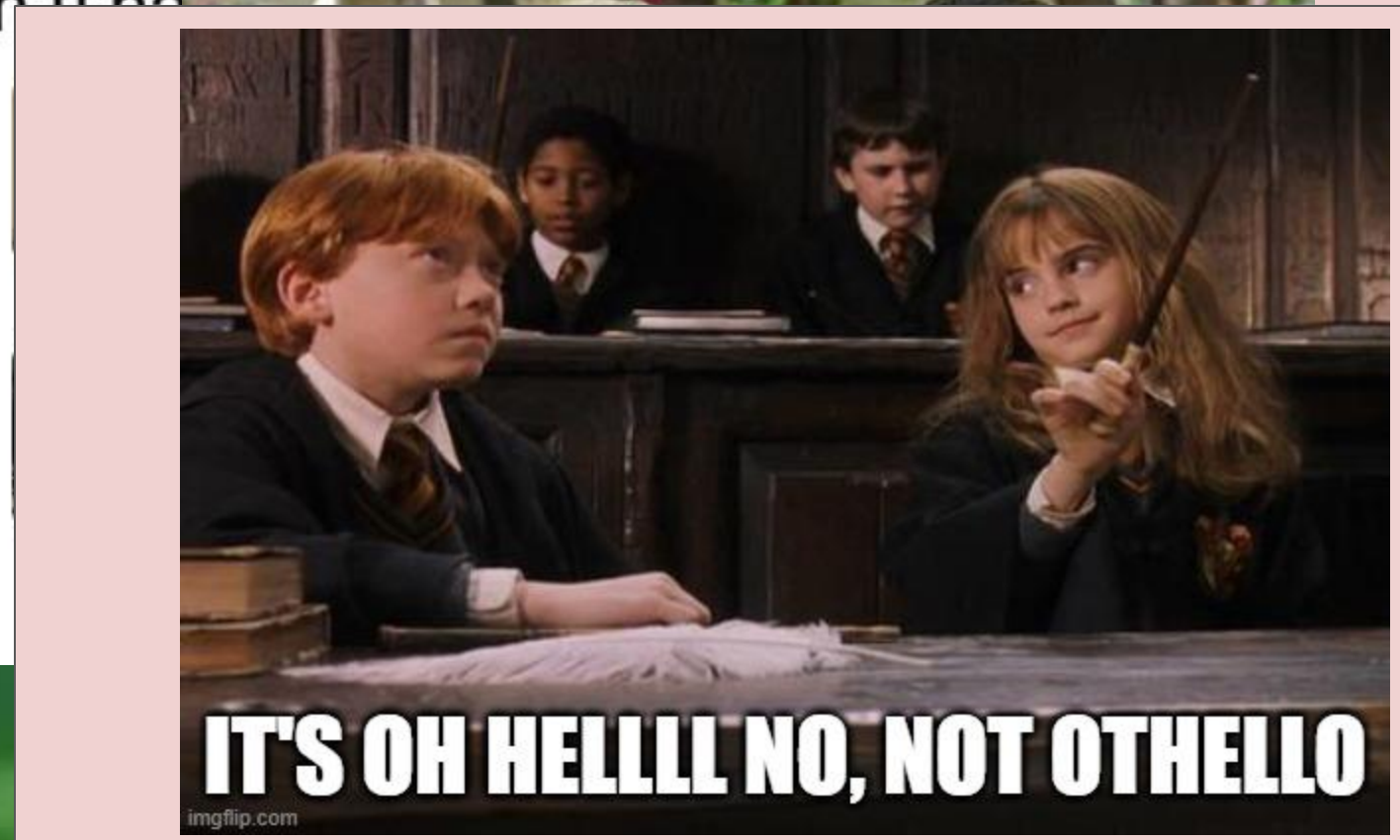
Raise your hand if you know what

Code it? Gonna have to learn how

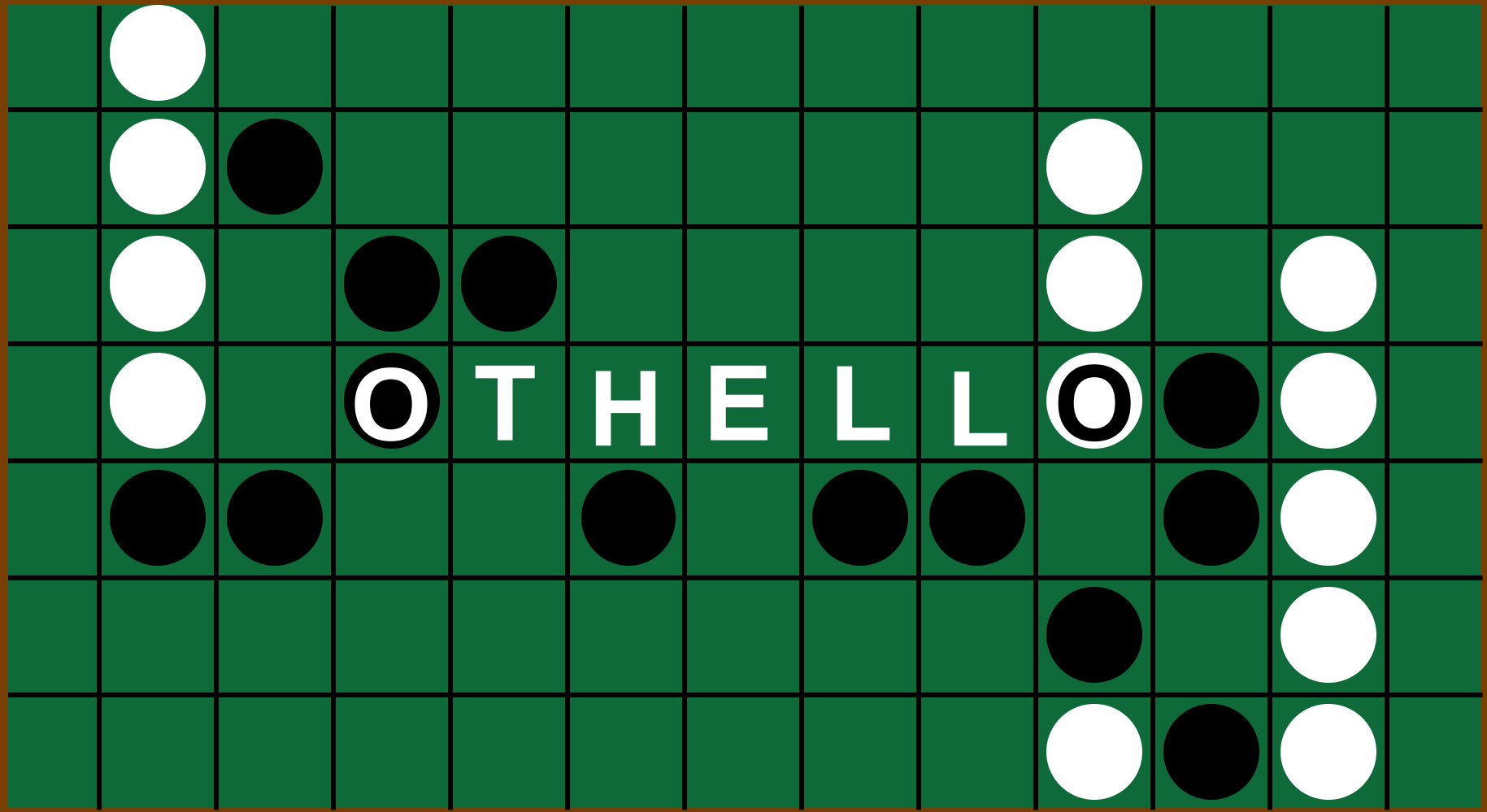


Visual Hole. 4th gen flop. No slay

sidechat


IT'S OH HELLLL NO, NOT OTHELLO
imgflip.com

Demo


OTHELLO

Some info

- Othello is a two-player strategy board game also known as Reversi
- Create your own multi-level Artificial Intelligence (AI) player that can play a human player or another AI
- Can play the game with oreos

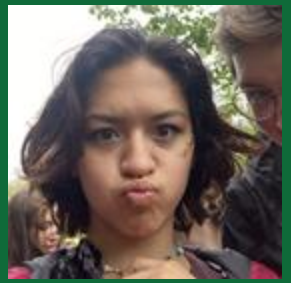
Thomas J. Watson, Sr.
Center for Information Technology

Roast

OTHELLO

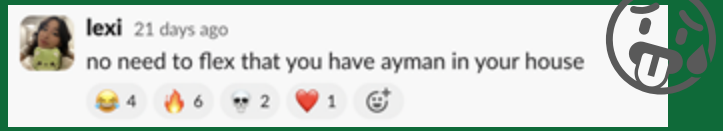
Most stacked TA staff!!!!

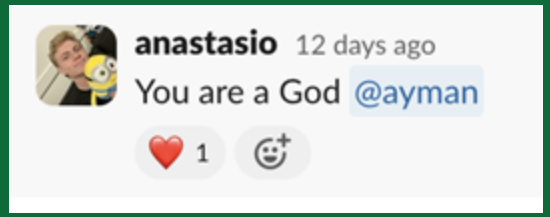
Creator of GPTA (he learned AI from Othello!!!)

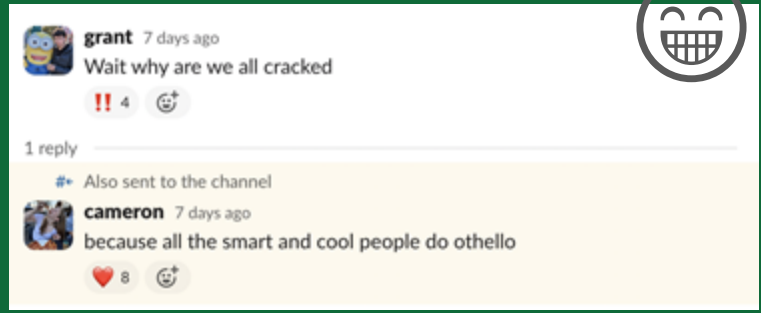


Former cartoon winners 💪👑🏅

Answers all your ed questions







SKETCHY 😂

Drawing Options
Select Shape
Draw with Pen
Draw Rectangle
Draw Ellipse
Set the Color
Black
Shape Actions
Fill
Delete
Raise
Lower
Operations
Undo
Redo
Save
Load

SKETCHY
"You guys always act like you're bette
than me"
reddit

OTHELLO
PACMAN
INDY
imgflip.com

OTHELLO
ANDY
PACMAN

SKETCHY
imgflip.com

INDY
SKETCHY

emily h 11:30 AM

@channel if anyone is free, can you come to the CIT right now to be an extra in the Sketchy skit

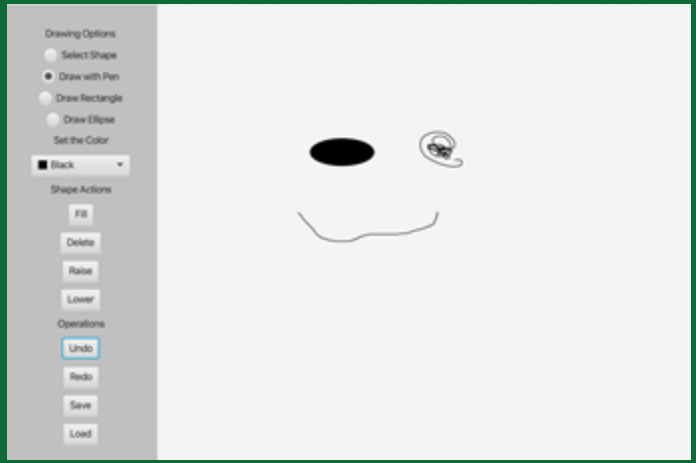
sarah o 11:37 AM

pls 🙏

2 replies Last reply today at 11:39 AM

anastasio 1 day ago

any and all are welcome, we accept people from pacman, othello, and even sketchy (edited)



SKETCHY 😂

- Laughable
- bffr

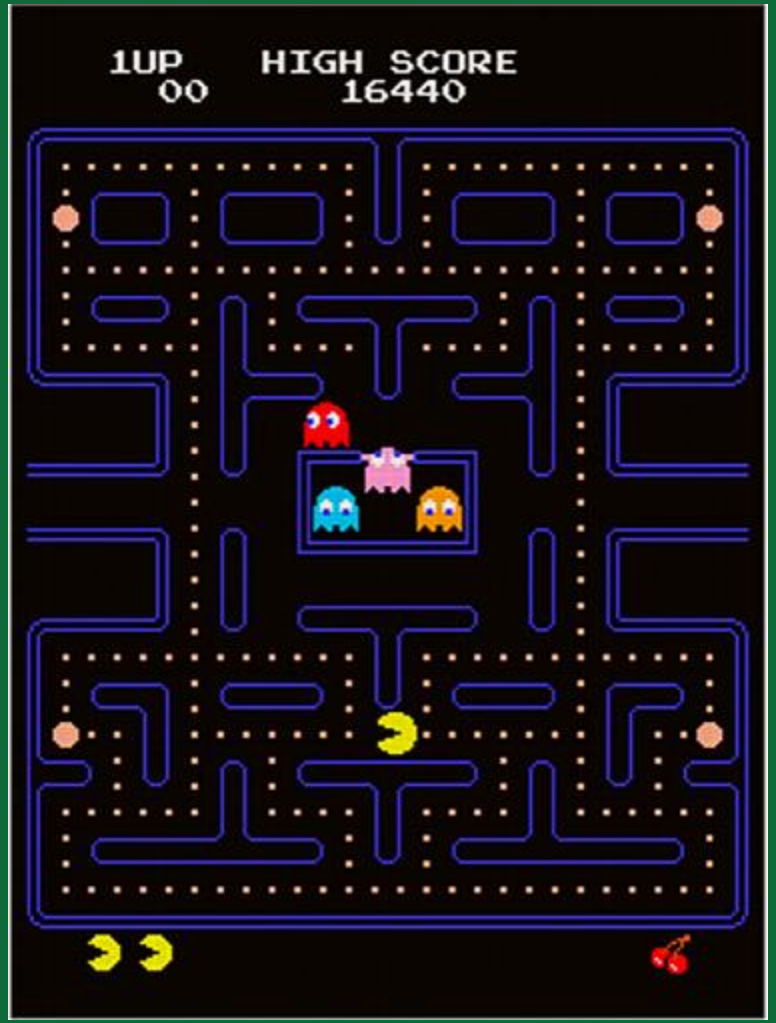
OTHELLO

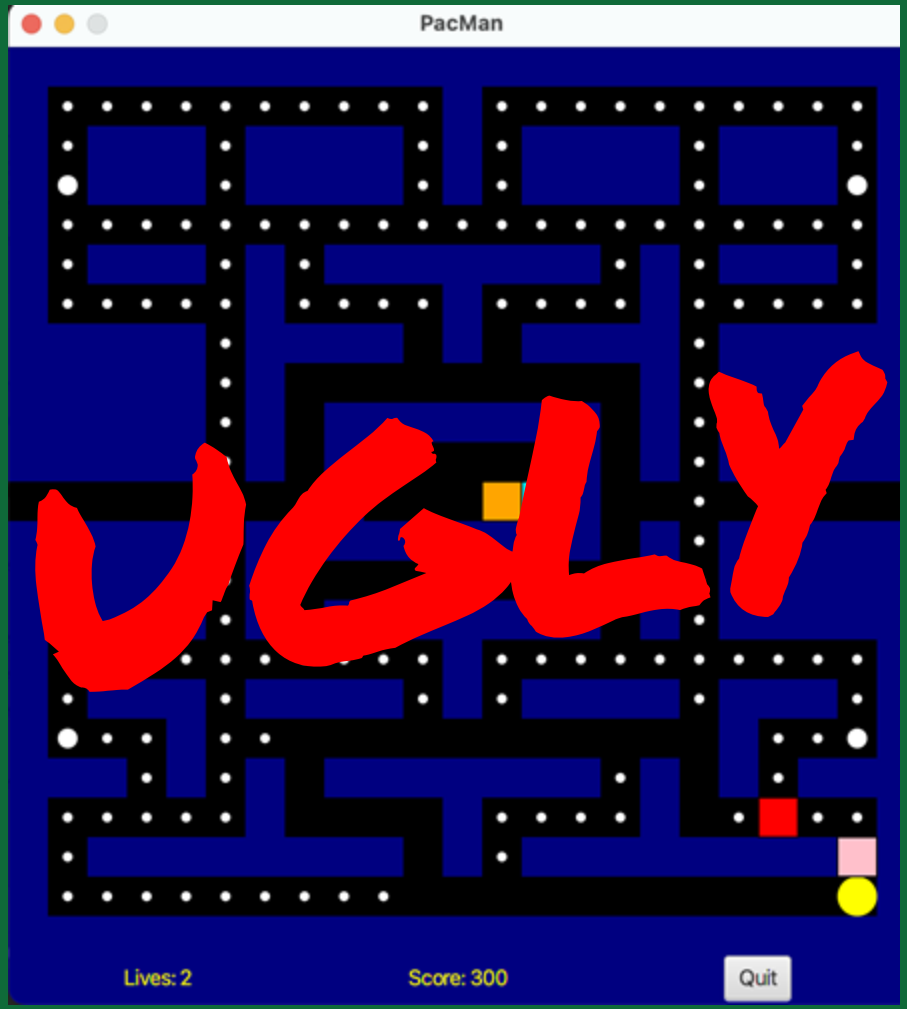
- Cool
- Not ugly
- Imagine showing your friends back home AI you programmed - vs imagine showing them Sketchy

PACMAN

BORING

I'M GONNA
DO PACMAN!

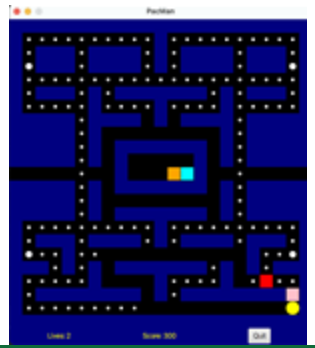

1UP
00
HIGH SCORE
16440


PacMan
UGLY
Lives: 2
Score: 300
Quit

Mom, can we have PACMAN ?

No. There is PACMAN At Home

PACMAN At home...



imgflip.com

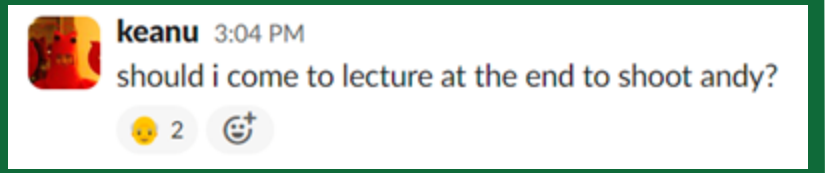
Is the breadth first search algorithm considered to be AI?

The Breadth-First Search (BFS) algorithm itself is not considered artificial intelligence (AI). BFS is a fundamental algorithm used for traversing or searching tree or graph structures. It systematically explores all the vertices at the same level before moving on to the next level, making it useful for tasks such as finding the shortest path between two nodes in a graph.

Pacman 😠

- That debugging line…
- Ugly
- Lame
- Boring
- BFS (fake AI)

Hates andy 😱🤬



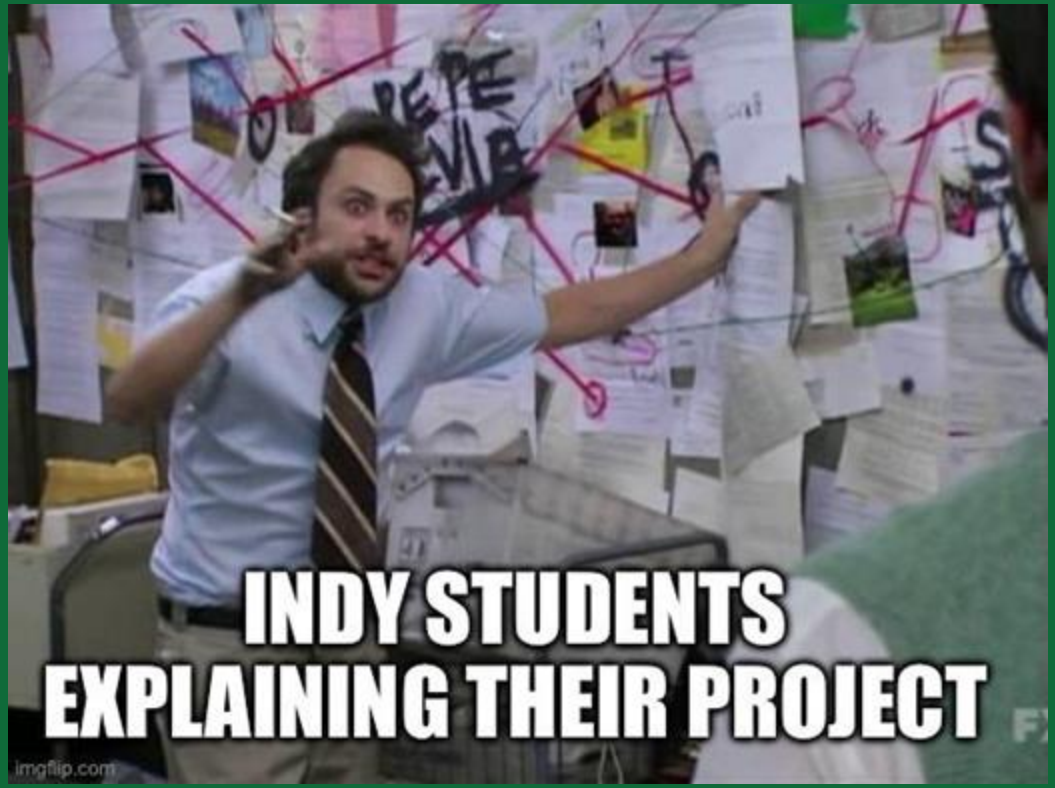
OTHELLO

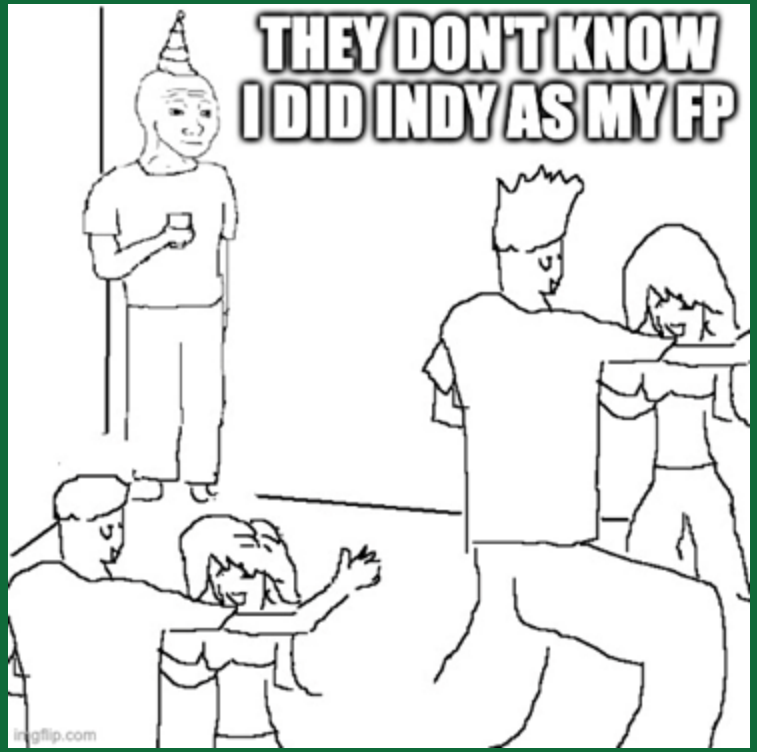
- You'll be home before the queue ends
- Sexy
- Fun
- Highest grade avg 👀
- Real AI

Loves andy 😍♡🔥

3: INDY 💀

imagine


INDY STUDENTS
EXPLAINING THEIR PROJECT
imgflip.com


THEY DON'T KNOW
I DID INDY AS MY FP
imgflip.com

The indy tas over thanksgiving break, 2022

Gavin pondering his life choices after choosing Indy

Anastasio searching for Indy TAs

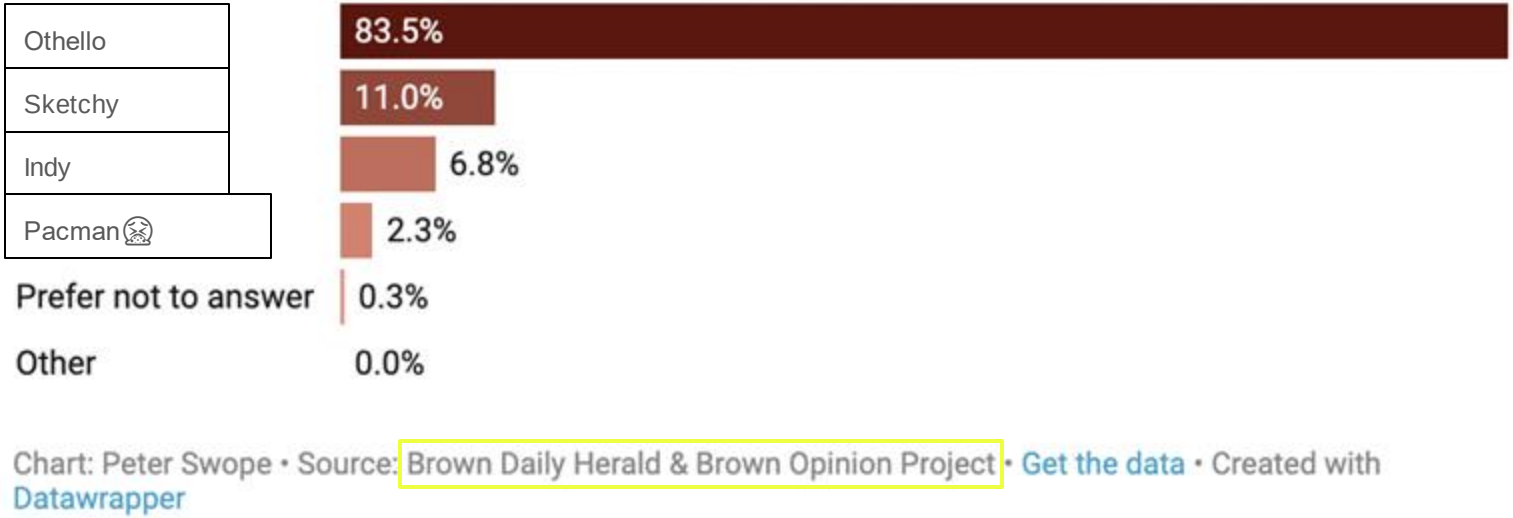
Indy 💀

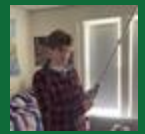
- That project proposal… 😫
- hard
- Why would you do this

OTHELLO 💪

- NO PROJECT PROPOSAL
- LESS THINKING
- WILL NOT MAKE YOUR LIFE HELL (PROBABLY)
- MORE FUN
- IT'S LIT🔥

Which CS15 final project has the hottest and coolest TA's?





CONCLUSION:

HOT PEOPLE DO OTHELLO

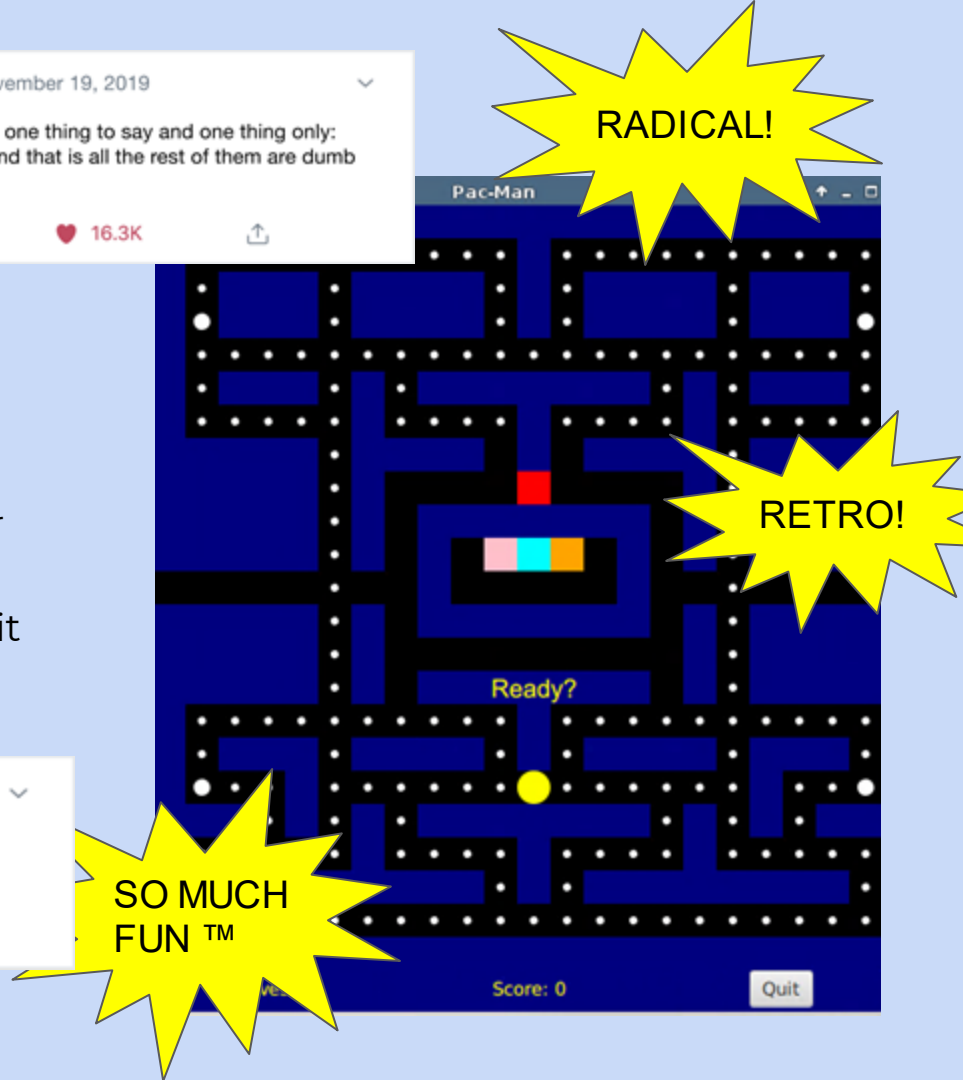
CapCut

Demo!!

Juan
Adam
Faizah
Julie
Gaby
Logan
Ilan
Megan
Ben
Dan L.
Jackie
Caden
PAC-MAN
Robyn
Natalie
Grace Ma
Sophia
Keanu
Kam
Allie
Ashton
Channing
Asia
Lexi
Seehanah
Chloe
Owen

Some Info

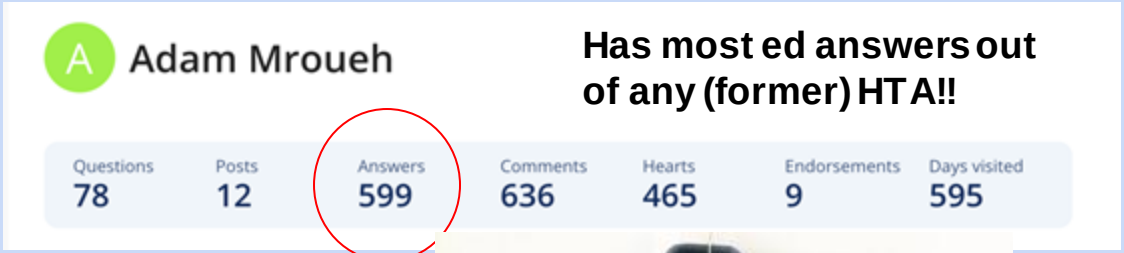
- Super rad arcade game
- Write an AI for the Ghosts by implementing a Breadth-First Search algorithm
- Play against said ghosts as you “test your game”
- Opportunities for fun extra credit like fruit and extra levels



Brown Trivia 69: The Pax in CPax stands for Christina Paxman in honor of her favorite CS15 final project

Top Reasons to Do Pacman

We Got Adam



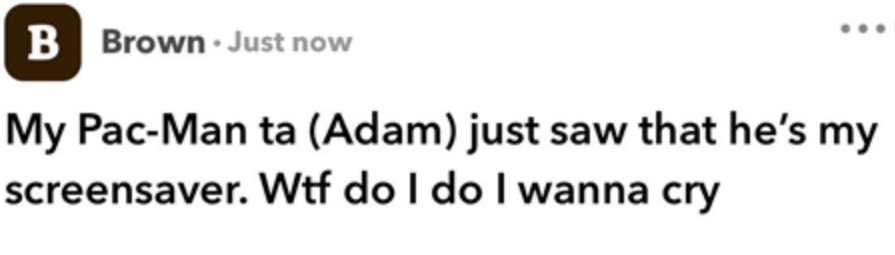
You get to spend time with Adam - the only TA with a Morgan Stanley Vest ;)))

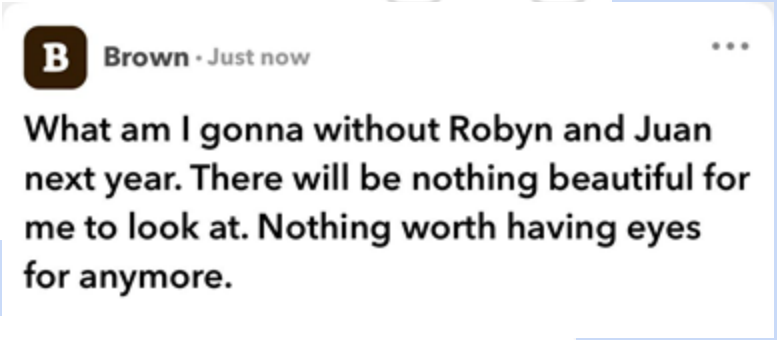
We Have 2/3 STAs

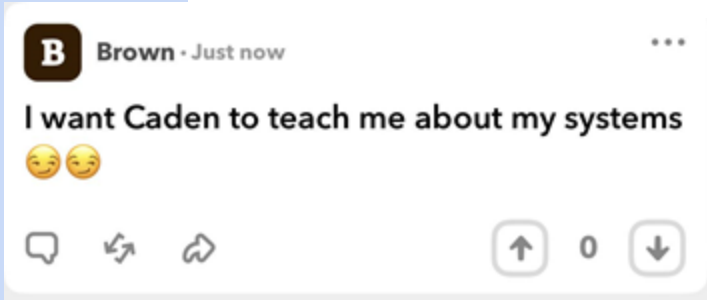
(stands for smartest TAs)

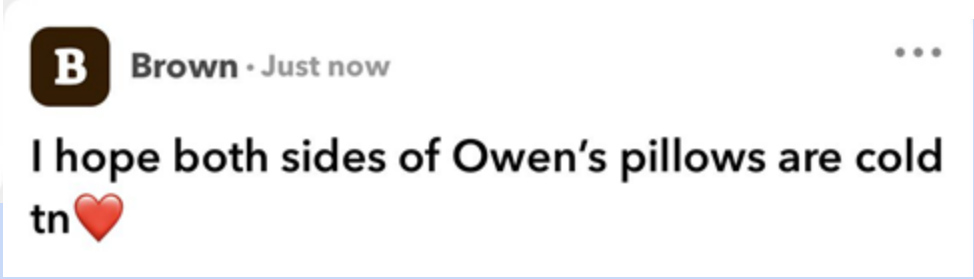
Source: 2021 skits

...and all the other Sexiest TAs



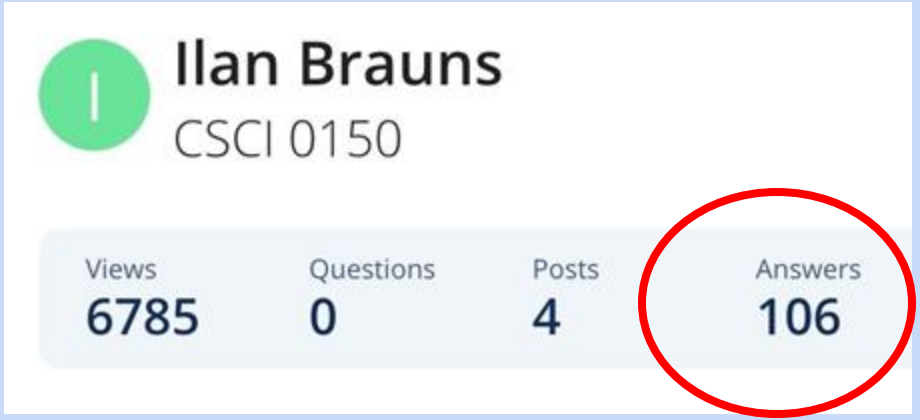




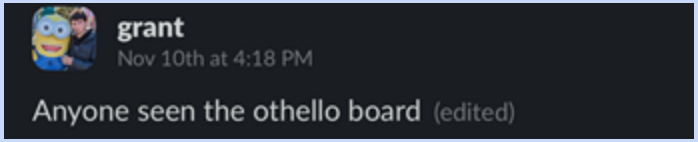


Look at this duo

And Ilan with over 100 ed answers



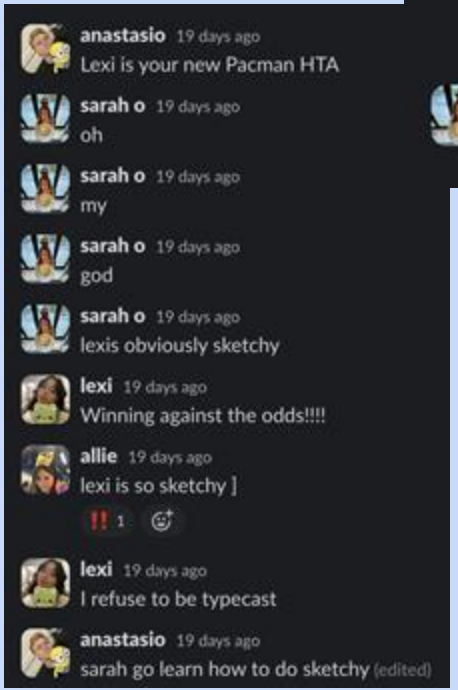
Pacman is actually relevant

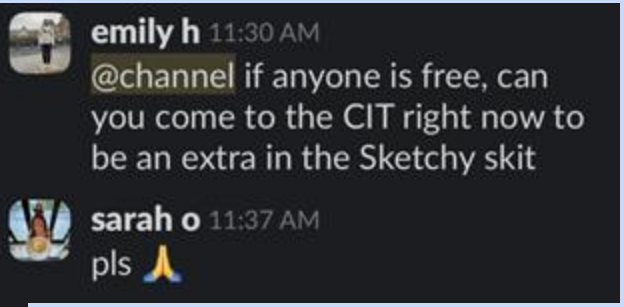


Proof that no one cares about the other projects

Look at the Pacman stats though ;)))

HTAs fighting over who gets Pacman

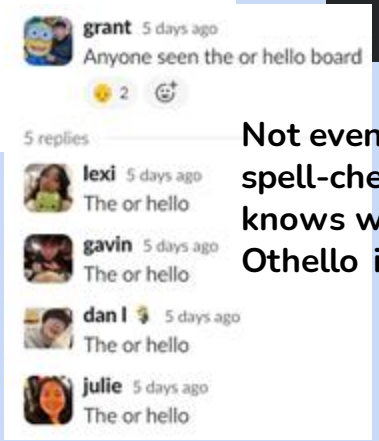




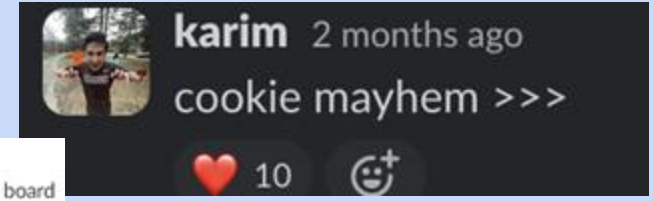
Sketchy TAs had to beg the Slack for extras…pathetic

Sketchy's own HTA didn't want it

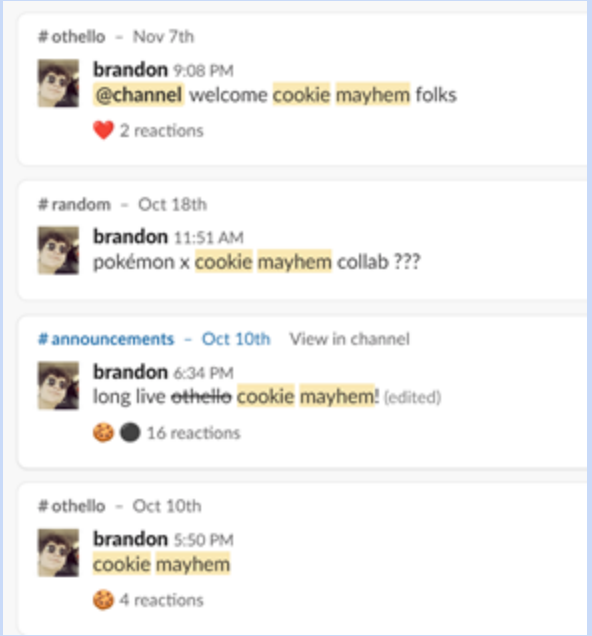
Pacman is superior to Othello



Not even Apple's spell-check knows what Othello is



What even is Othello? - Othello TA Karim (also part of the cookie mayhem movement)



Even the TAs ~~hate~~ dislike Othello.

Othello TAs trying to rebrand it as "cookie mayhem" to make it sound less boring

Othello TAs are dirty

hello??

Also rumor has it Cannon doesn't believe in washing his hands/using hand sanitizer…?

Cannon doesn't even wash his hair…

emily h 11:31 PM
"I'm doing the no poo method" @cannon

emily h 5:56 PM
^ to clarify it means he hasn't washed his hair in over 2 months

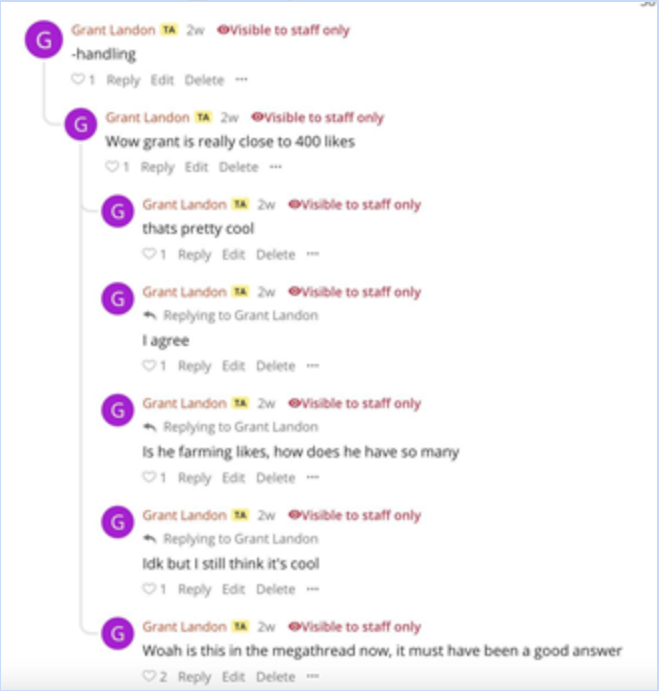
Brown · Just now
Can cannon wash his hair?? It looks like he just mopped up a McDonalds with it

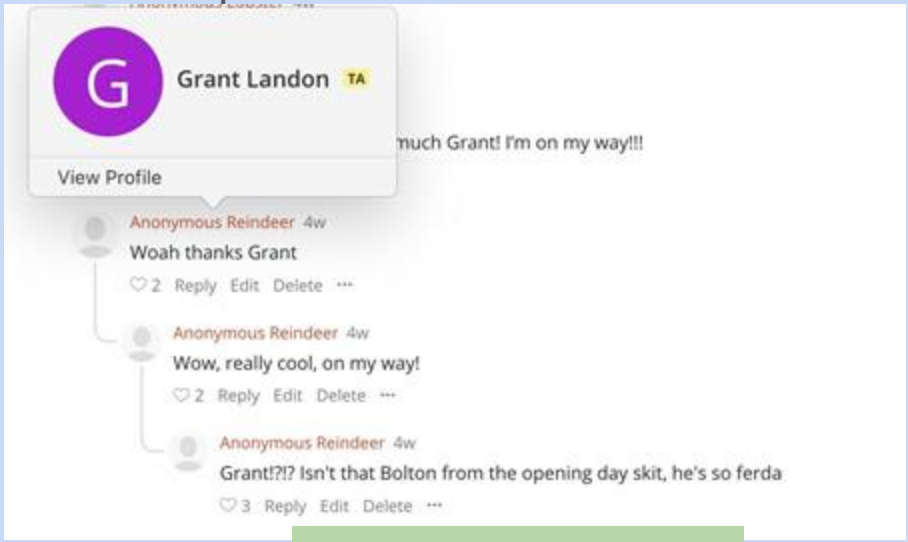
1

JUMP SCARE

Othello TAs are all try-hards

Grant literally replies to ALL of his own ed posts





Grant and Sarah R pressure their students??? NEVER okay.

GRANT AND SARAH ARE THE BEST SECTION TA'S!!! (Definitely wasn't pressured into doing this) #604

Does anyone even know how to play Othello??

GPTA

J do you know how to play pacman

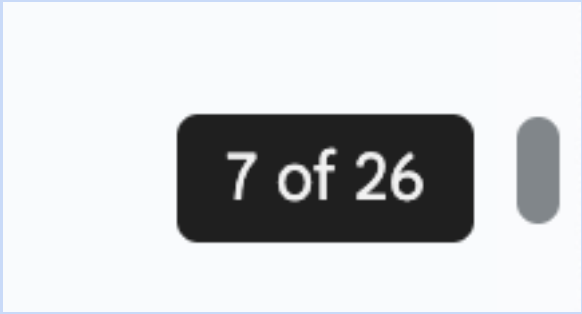
Yes, I am familiar with the game Pacman. It is a classic arcade game where the player controls a character that moves around a maze, eating pellets while avoiding ghosts. The objective is to eat all the pellets in the maze without getting caught by any of the ghosts. If you have any specific questions about implementing Pacman or any related concepts, feel free to ask! Keep up your enthusiasm for learning!

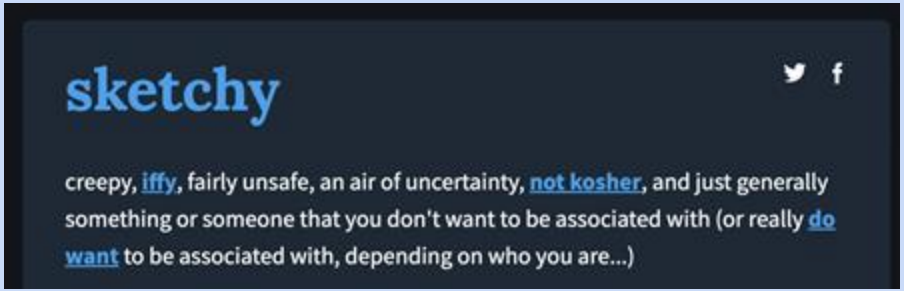
J do you know how to play othello

No

(4/5) Pacman is superior to Sketchy

Sketchy is all about pretty pictures
so we took some relevant screenshots:

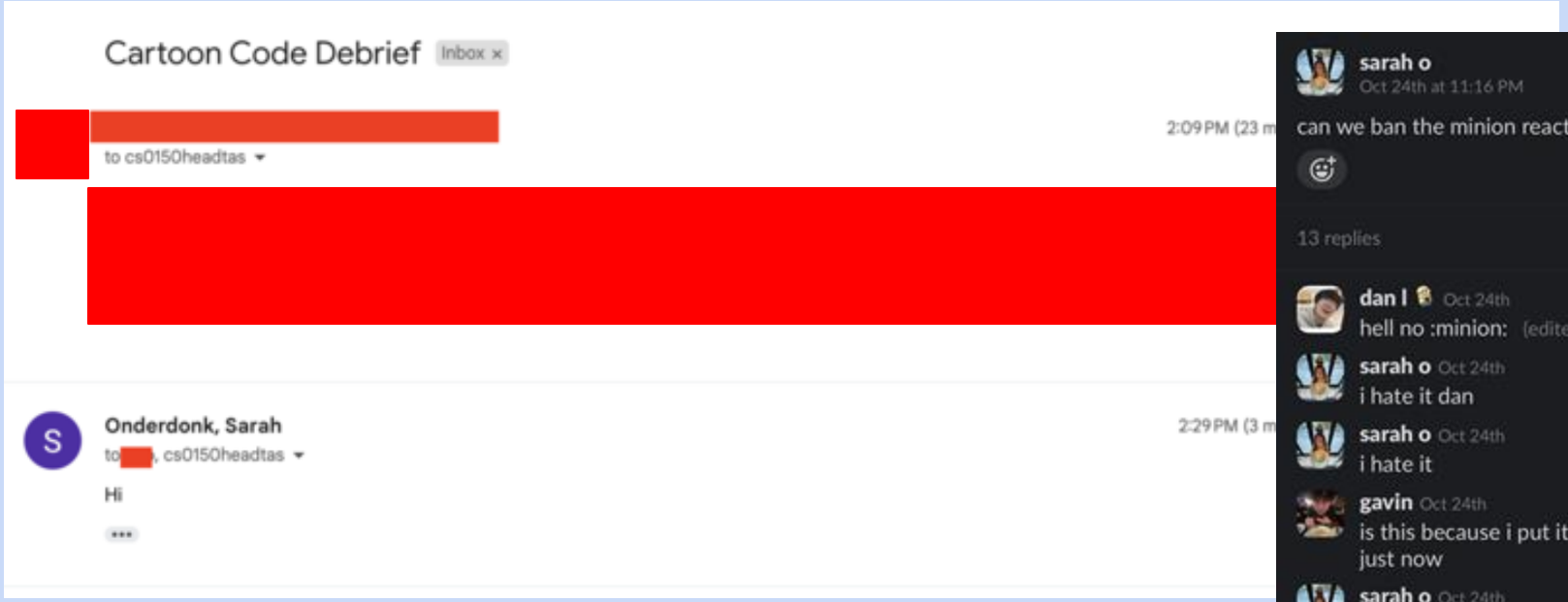




The Sketchy handout is 26 pages.. Pacman's is a respectable 19 <3

TV in Page-Rob telling you not to open any emails from Sketchy

What's Sarah's (Sketchy HTA) biggest weakness? Gmail or fun? We'll let you decide for yourselves



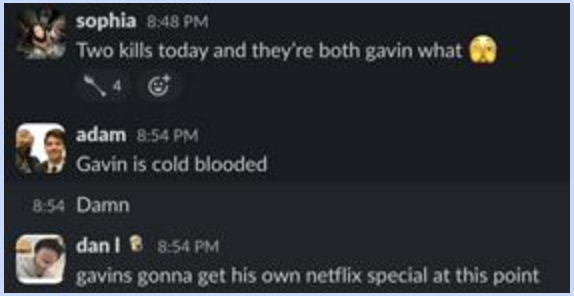
Good luck getting any help from Sketchy TAs. Doesn't look like they have email figured out yet

Can we get an f in the chat for the minion react?

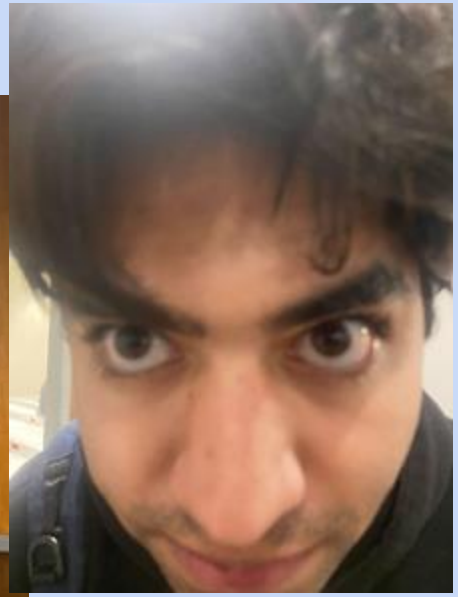
(5/5) Pacman is superior to Indy

Indy? More like IntheCITallthetime

Anastasio after convincing you Indy is a good idea then leaving you for the wolves (his average response time on Ed is 1.2 days)



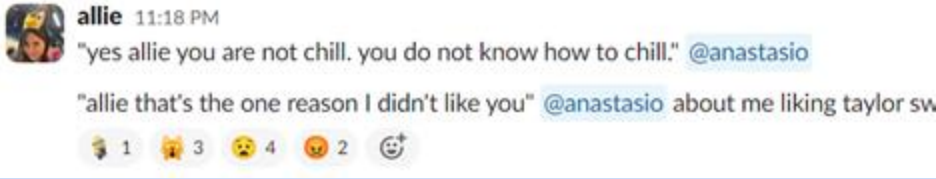
Indy TAs are ruthless… see for yourself



Not to mention their god complexes

“i hAvE pRiOr cOdiNg eXpErIeNcE”

In case you need more reasons not to do Indy...

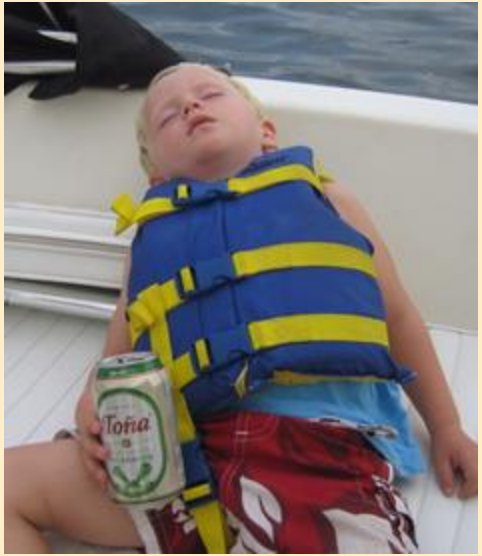


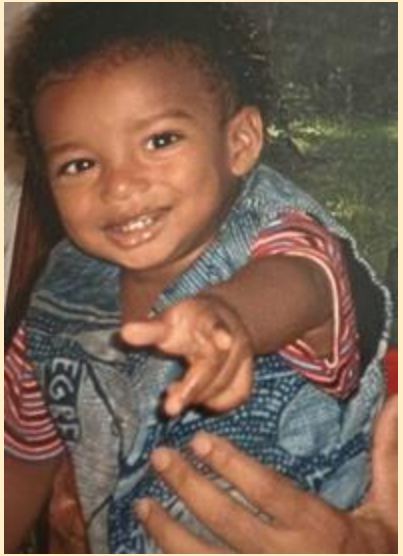
Anastasio. Anastasio is the reason you should not do Indy.

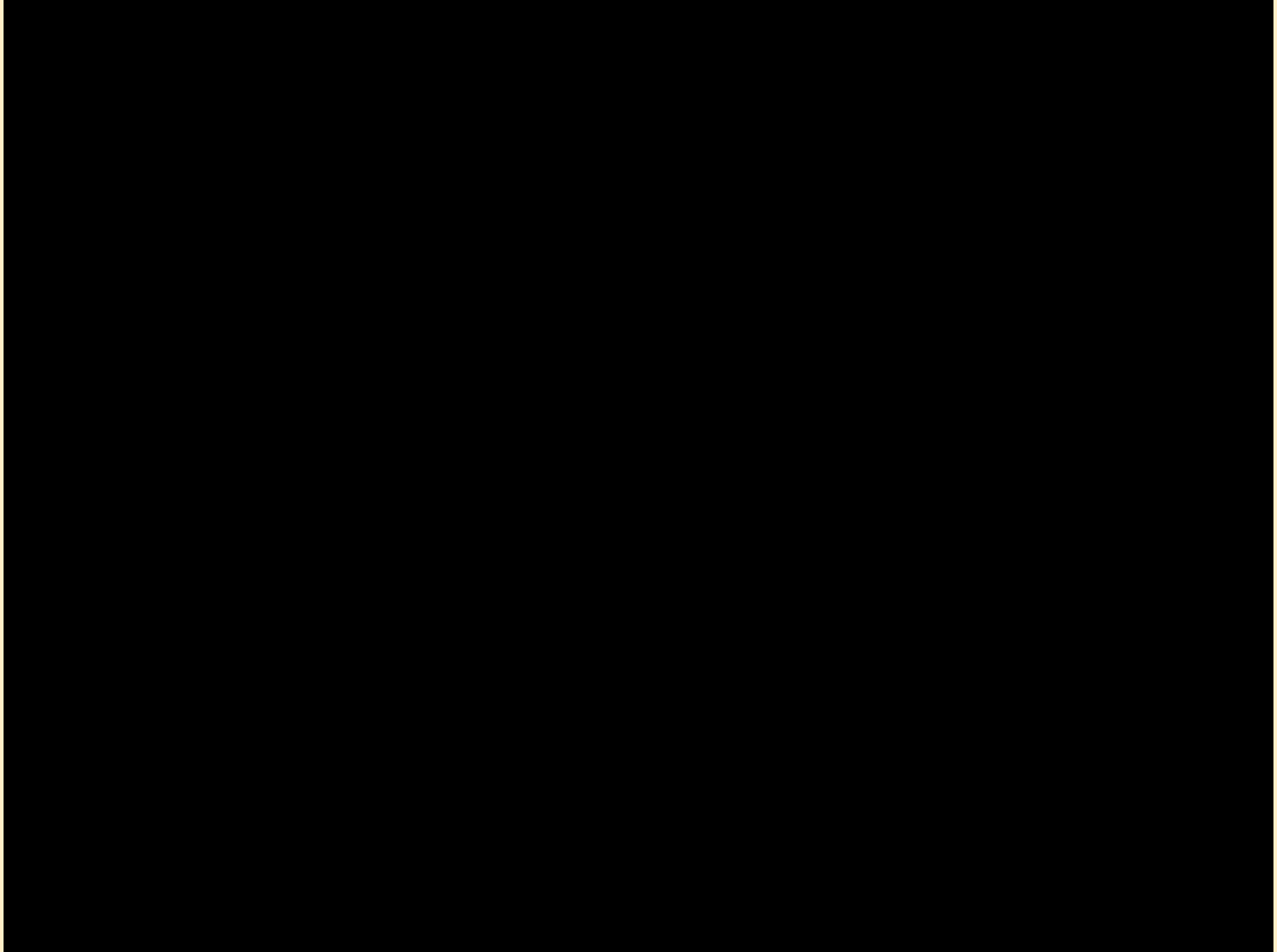
Demo

Indy

(feat. Anastasio, Gavin, Morgane, & David)







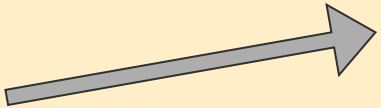
Some info

- You design your own project!! ✨
- Requirements:
  - Appropriate length (e.g., not Pong)
  - Uses polymorphism
  - Uses a new data structure
  - Uses an algorithm of moderate complexity (at least as complicated as Tetris' line clearing)
  - Originality
- Possibilities are endless! ∞

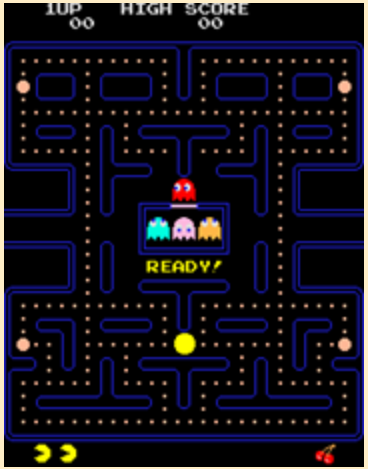
Top Reasons to do Indy (a)

You don’t have to go to conceptual hours ever again

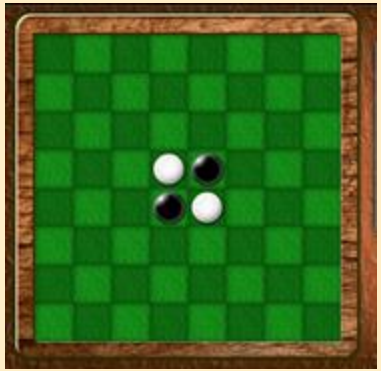
us soon?



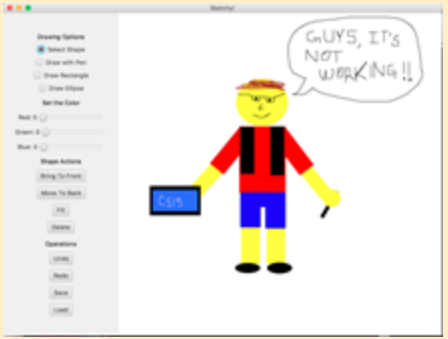
Top Reasons to do Indy (b)



1980



1883

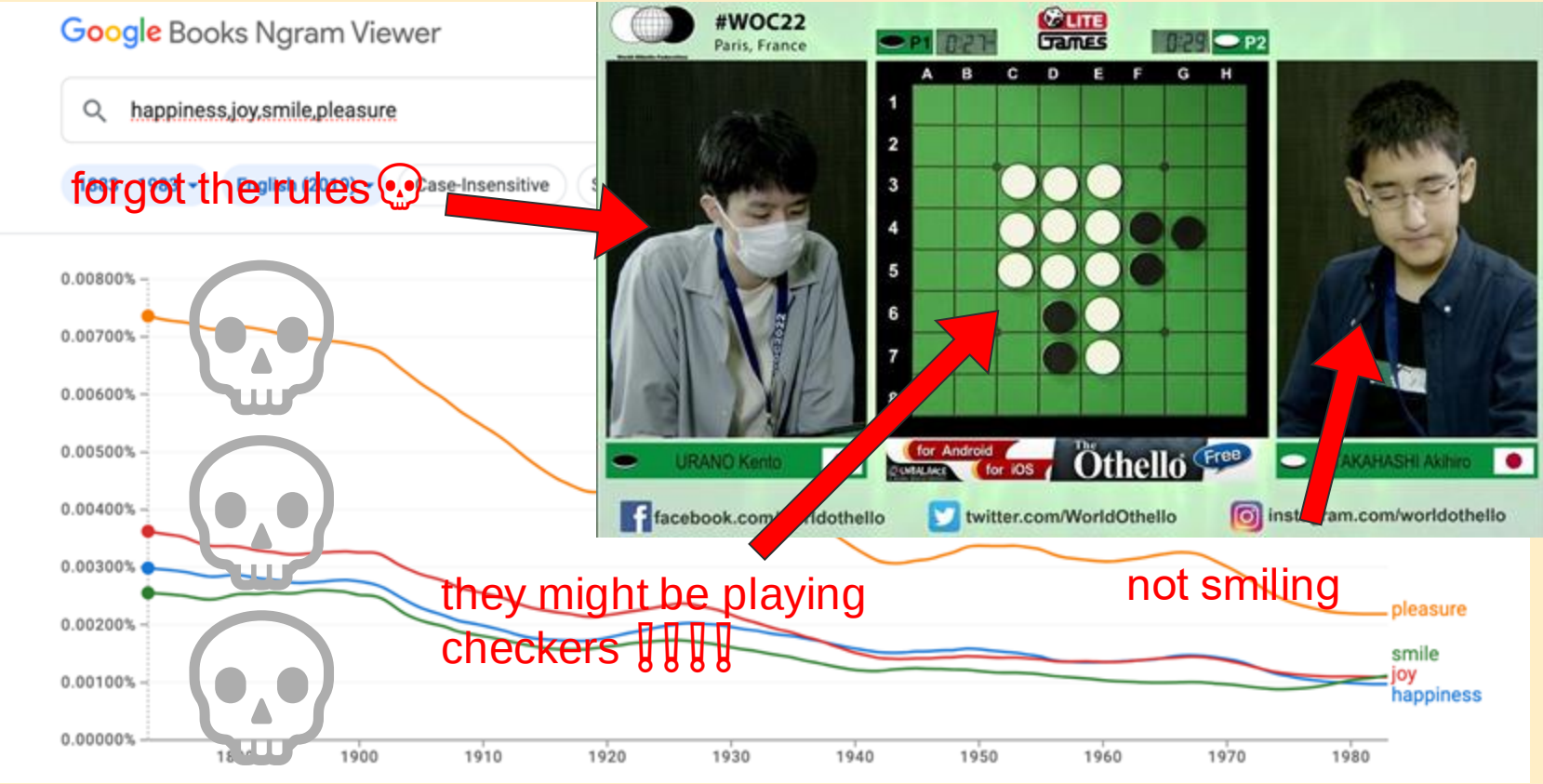


Never made it to market

importa sed)

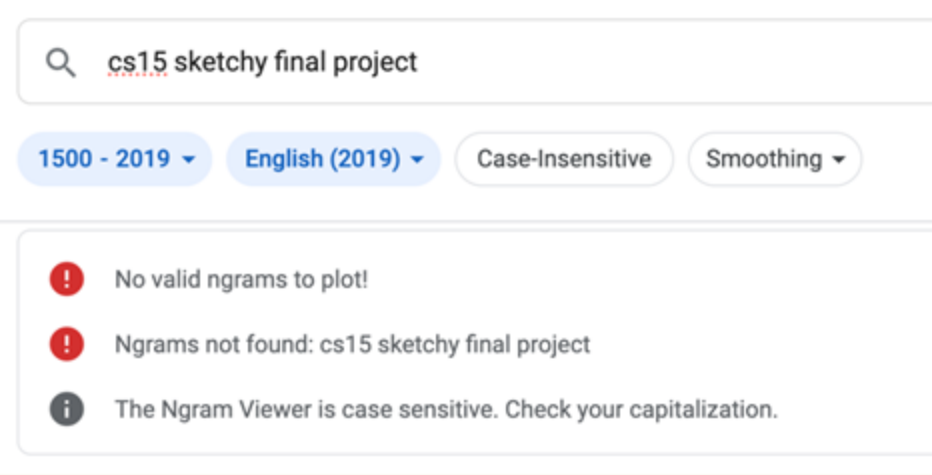
crying alone in m
1980 - 2019
English
0.000000260%
0.000000240%
0.000000220%
0.000000200%
0.000000180%
0.000000160%
0.000000140%
0.000000120%
0.000000100%
0.000000080%
0.000000060%
0.000000040%
0.000000020%
0.000000000%
1980
1980
crying
every
some
everything sucks
someone save me
crying alone in my room
Self proclaimed "free thinkers" when
when they see little tasty orbs
Twunk 23d
48.1K
563

trend since 1883 :/ (othello dropped)



I cant wait to code an AI for othello
my brother in christ
find a friend
imgflip.com

more trends :(



we got gta 6 before sketchy

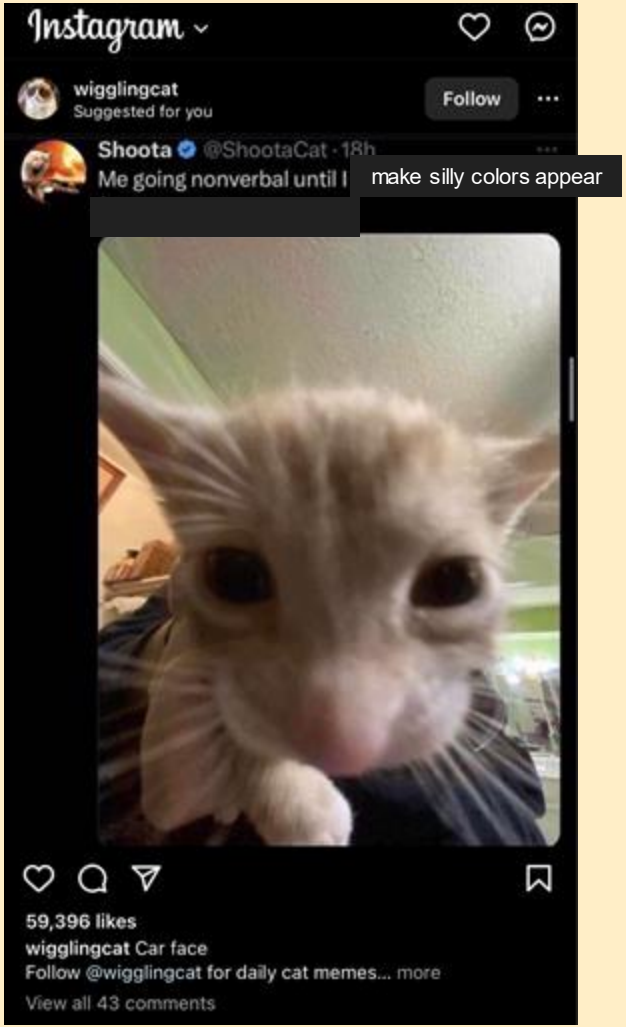
wtf is an othello

cool shapes go brrrrr

i need to pick a fp

i will do sketchy

average sketchy student



SOCIETY IF..
STUDENTS
all did indy cs15 final project
imgflip.com

Top Reasons to do Indy (c)

Top Reasons to do Indy (d)

Guaranteed MOSS score of 0%

Top Reasons to do Indy (e)

You can put Indy in your brand new computer science portfolio (its 100% yours!) 😍

typical pacman student when they need a portfolio for their TikTok internship :(

USED TO BE BROKE BUT
future indy student
at brown reunion
DA ICE COMES WITH AGE 💯

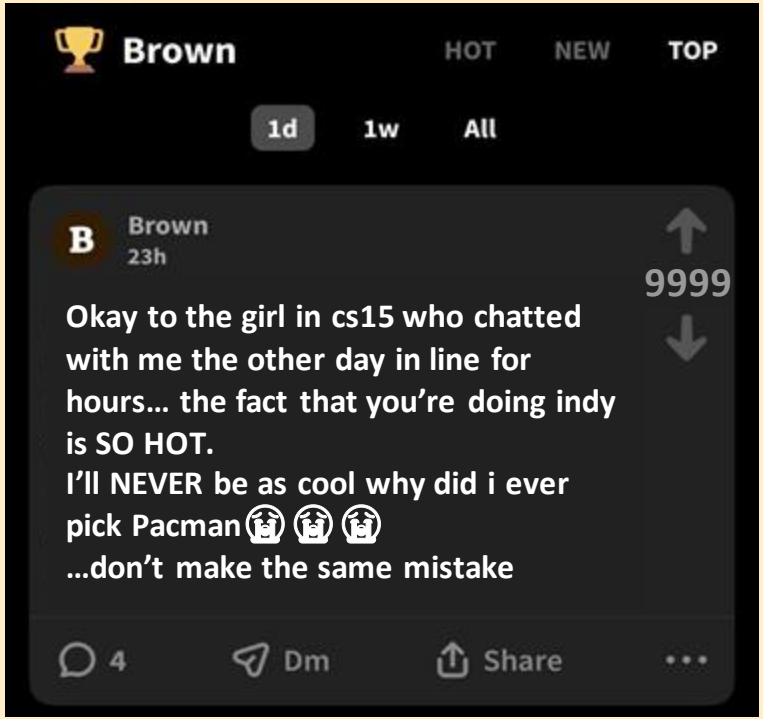
BUT MY MONEY STILL GRU

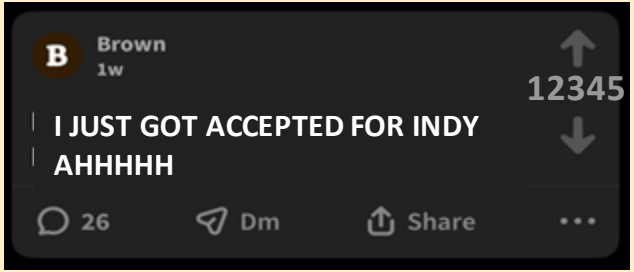
Top Reasons to do Indy (f)

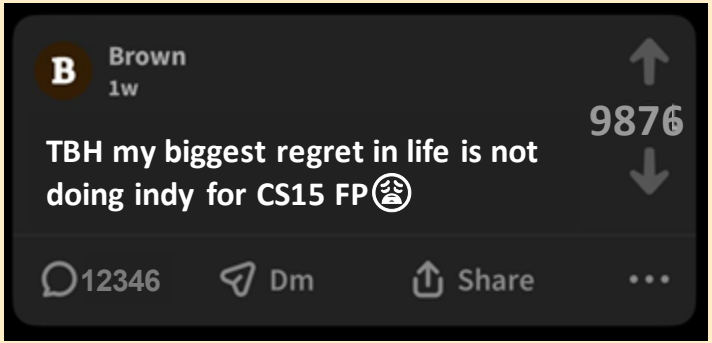
Indy is only one letter away from **Andy**

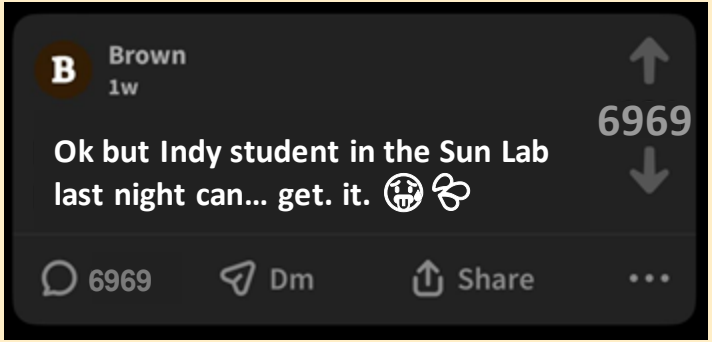
(and only 3 letters from daddy 😟)

Top Reasons to do Indy (g)









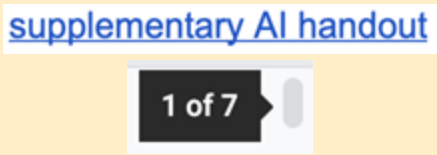
Top Reasons to do Indy (h)

Pacman Handout?

Sketchy Handout?

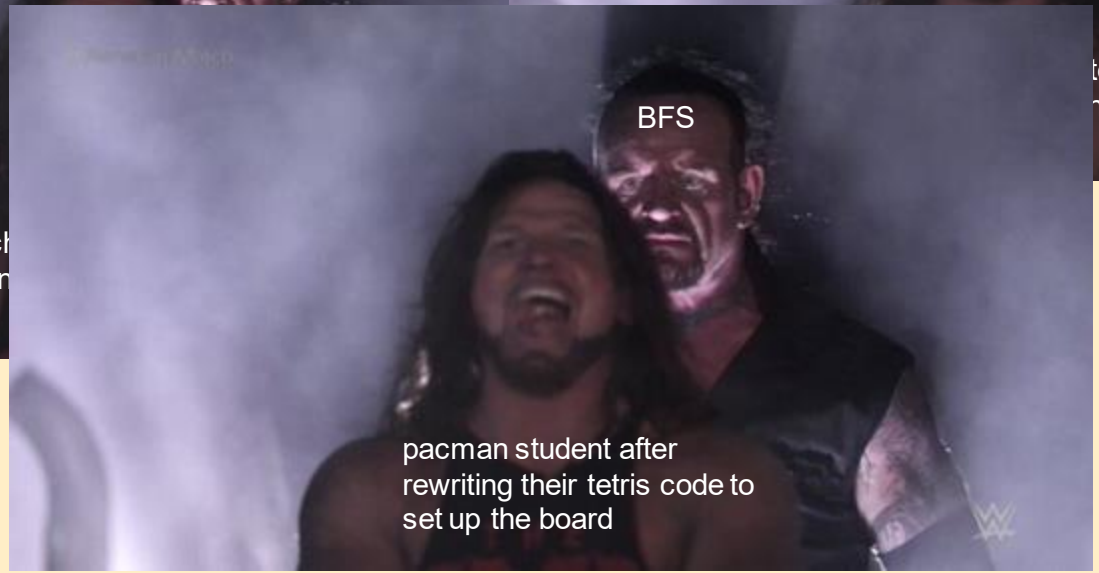
Othello Handout?

But Othello has AN EXTRA HANDOUT



The Indy handout is only 7 pages 😈

Top Reasons to do Indy (i)



Top Reasons to do Indy (j)

the other HTAs regret not doing indy

we have proof

To: Allie

anastasio can i tell you a secret

kk

i've been thinking

and indy is my favorite fp

🤭 🤭 🤭

i wish i didn't have to waste my time on pac-man and sketchy bugs :(

iMessage

To: Lexi

anstaso

hi

u so cooool

i wish i did indy like you

r u drunk

Delivered

00:20

GIPHY via #images

iMessage

To:

hey anastasio

Hey bb

can i please do indy instead of othello 🥺👉👈

Edited

i keep forgetting the rules for othello

but indy is so cool because there are no rules!

iMessage

Top Reasons to do Indy (k)

PacMan:
maximum score is only 3,333,360 points :(

Othello:
you lose to AI 💀

Sketchy:
you lost the second you picked sketchy

Indy:

Logistics

Just a reminder that you do need to meet all the requirements listed in the handout to be approved to do Indy!

BUT! Don't worry––we will help you meet the requirements if you are stuck or need to brainstorm together!

We want you to be as creative as possible while still meeting the requirements, and the Indy team is here to support!😊

Demos

Very Important Indy Information

- If you're interested in doing Indy, you should
  - Develop an initial plan for yours soon.
  - If you have any questions, you can email the Indy TAs at: aortiz18@cs.brown.edu, gdhanda@cs.brown.edu, mpizigo@cs.brown.edu, and dolaniyi@cs.brown.edu.
  - Find a "backup" Final Project that you'll do in case your project doesn't get approved.
- **Send us a project proposal by THIS SATURDAY 11:59PM EDT**
- Keep in mind that Indy is a much larger time commitment than the other final projects
  - You'll be responsible for creating your own program specs and design (other projects already have this planned out).
  - There's a lot of freedom in this assignment—be comfortable with the lack of structure!
- It's a lot of work, but a lot of fun!

Announcements

Timeline

- Today, November 16th.....FPs released
- Saturday, November 18th @ 1PM ET.....Virtual FP Help Sessions
- Saturday, November 18th @ 11:59PM ET.....FP Declaration Form due
- Sunday, December 3rd, @ 10:00PM ET.....Code checkpoint due
  - Must come to Conceptual Hours to be checked off for your FP-specific code checkpoint
- Sunday, December 10th @ 11:59PM ET.....Early handin deadline
- Tuesday, December 12th @ 11:59PM ET.....On-time handin deadline
- Thursday, December 14th @ 5PM ET.....Late handin deadline
  - the late deadline should only be used if you need to meet MF. You will lose -8% of your grade if you submit on the late deadline, you may NOT use late days for the final project
  - **If you haven't submitted anything by 5PM on Dec 14th, you will NC the course**

Announcements (1/2)

- If you're interested in Indy:
  - Submit your proposal to the Indy TAs using the form in the handout by Saturday at 11:59PM
- ***Everyone, regardless of which project you want to do, must fill out the FP declaration form by Saturday at 11:59PM.***
  - This form is binding. If you want to switch afterward, you must email the HTAs.
- Come to HTA hours tomorrow (Friday) 3-4 PM in CIT 210 or on Zoom if you want to talk about which Final Project to do!

Announcements (2/2)

- NO TA hours today or from Monday, November 20 to Sunday Nov 27th
- TA Hours WILL be held from Friday, Nov 17th to Sunday, Nov 19th
- Monday, Nov 28th after Thanksgiving break hours will resume
  - Feel free to post on Ed over Thanksgiving break, although TA response time may be a bit slower
- No lecture on Tuesday!
- Pick up CS15 T-shirts after lecture today!
- Have a great break!

Extra Credit SRC Workshop #2

12/03/23	12/04/23
2:00pm - 3:00pm 3:00pm - 4:00pm	6:00pm - 7:00pm