WHICH DISNEY CHARACTER DO YOU LOOK LIKE?

THEME

AI as Identifier
AI as Facial Detective
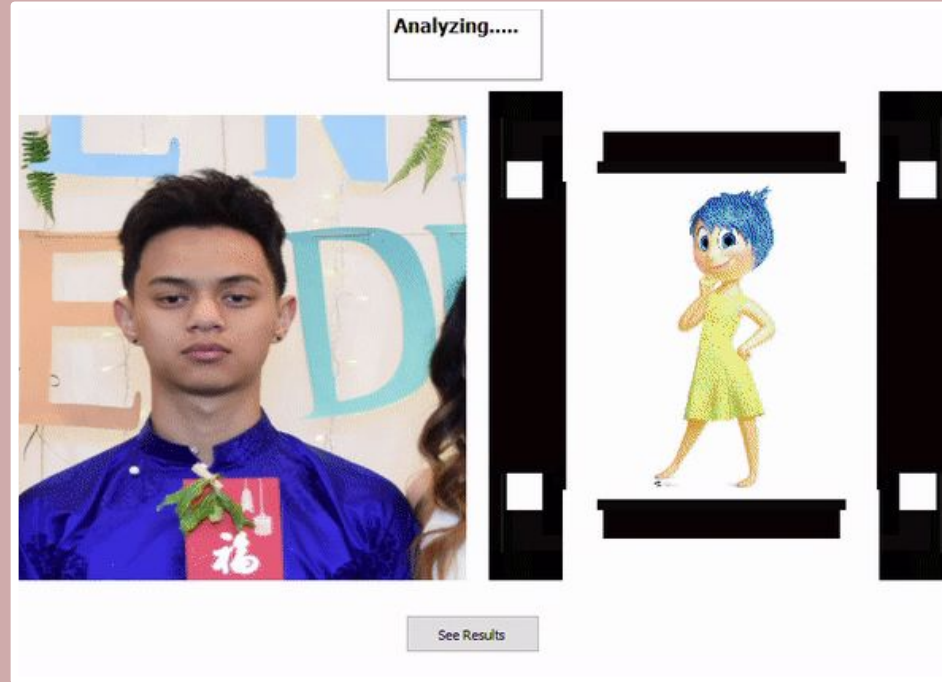~~AI as Buzzfeed Quiz~~
~~AI as Bully~~

THE TEAM

Allen Yabut
Andrew Nguyen
Hanette Le
Htoo Paing
Terence So

THE MAGICAL APPLICATION

WHAT YOU CAN SEE:

1. A GUI that requests an input picture.
   (torso and up with frontal view)

2. Loading Screen that compares image with our *magical* Disney database

3. Final Page that allows user to see their input, matched character, keypoint images, and the morphed photo of the two.

BEHIND THE SCENES

WHAT IS HAPPENING BEHIND THE SCENES:

1. The GUI reads in the picture and uses it to activate the program.

2. Program scans for faces and facial features with dlib and stores data into an array

3. Program iterates through our Disney character database and uses distances to compare facial landmark ratios

4. Marks the character with the lowest score as best fit

5. Morphs the character and user input by using the key points to form triangles and transform to faces to align
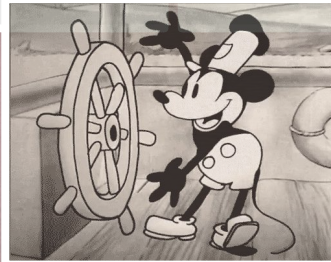
6. Display results to user on the GUI

BEHIND THE SCENES

WHAT IS HAPPENING BEHIND THE SCENES:

- OpenCV and dlib
- Facial Landmark Detection
  - Finds 68 points on the face
  - Procrustes Analysis
- Face morphing
  - Finding the average of points from the two sets of points from images
  - Establishing point correlation
  - Perform Delaunay triangulation to establish region correspondence
  - Calculate affine transformations to map triangles from an image to the warped image
  - Warp triangles and transform pixels
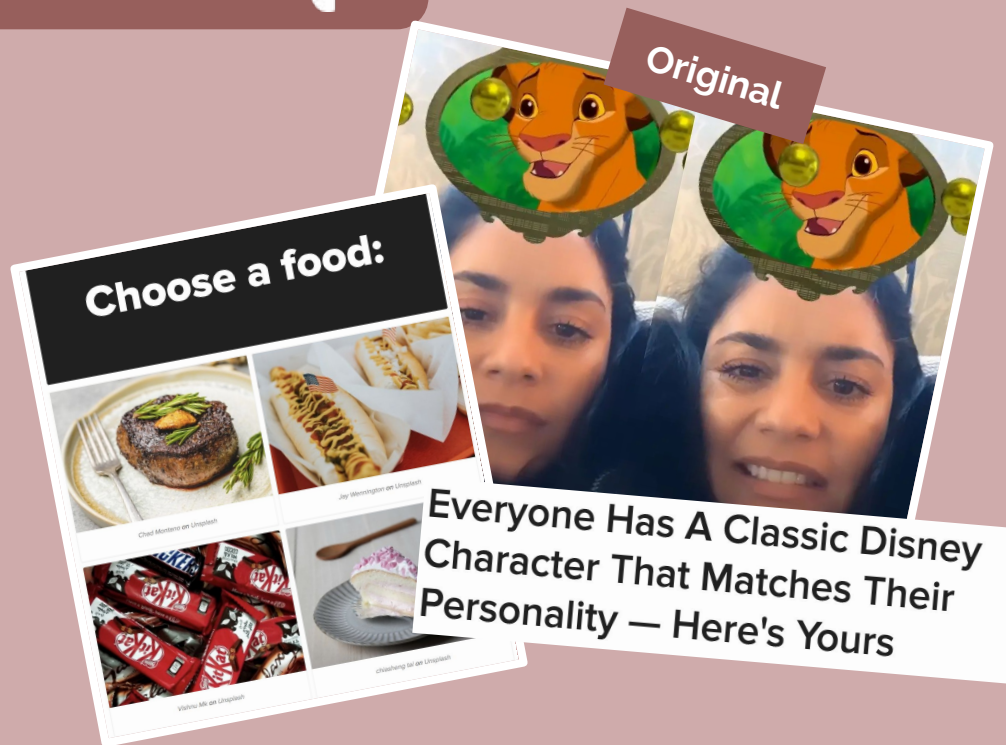 - Alpha blend the two images together

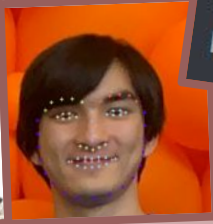# DEMO TIME!!

Input Picture

Input Picture

NOVELTY

- Snapchat/Instagram filters

- Randomly cycling through is in the past

- Our application throws away random choice and instead uses user inputted data and gives a concrete reason and evidence for their match

- Seeing the resemblance leads to a much more enjoyable time and lots of laughs

- Replayability with different matches for different pictures/people, even with just changing the poses of the same person

Original

Choose a food:

Everyone Has A Classic Disney Character That Matches Their Personality — Here's Yours

THE FUN AND RELATABLE PART

FUN

- Watching all the horrible morphs because of too close up or far away pictures

- Seeing the change of matches when adjusting the weights of importance for each part of the face

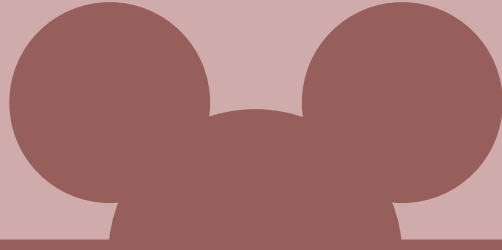- Everyone becoming Merida or Mr. Incredible and watching all the hideous morph babies

RELATABLE

- Brings clickbait Buzzfeed/Instagram/Snapchat quizzes to the next level
- Can be built upon for more games like trying to guess the match before it starts or by trying your best to imitate and get a certain match
- Can be used for character creation or building steps of character creation, like picking a template

mons Yesterday at 11:22 PM
HOW AM I CARL

a-l-l-e-n Yesterday at 11:22 PM
wow
these are
scarily accurate

QUESTIONS?

Thank you.