# WHICH DISNEY CHARACTER DO YOU LOOK LIKE?

*CMPM 146: Creative Project Proposal*

- **Overview** (what the project is about or will do)
    - The AI will analyze faces and face proportions
    - Taking the analyzed face, it will compare it to its database to find face similarities to Disney's characters
    - It will be able to take in any database of pictures of faces and find face similarities.
- **Team** (names of each team member)
    - Hanette Le
    - Andrew Nguyen
    - Htoo Paing
    - Terrence So
    - Allen Yabut
- **Theme** (e.g., "AI as Design Assistant, "AI as Student" or some other role you make up)
    - AI as Identifier
    - AI as Facial Detective
- **Novelty** (what is new or especially interesting about this project)
    - A new way to use face recognition to compare and analyze faces and face proportions.
    - There are similar filters on social media platforms such as Instagram and Snapchat claiming to find "which character are you", but just choose a random character from the choices. Ours instead uses facial data from both the analyzed face and the database to find the greatest similarity.
- **Value** (who would benefit from a real system based on your prototype)
    - Social media entertainment
    - Actors that are searching for roles similar to their features
- **Technology** (key AI elements of the approach)
    - Python
    - Deep Learning/Neural Network
    - OpenCV
- **Breakdown** (key component tasks + plan for partitioning the work within team)
    - Implementing facial recognition through deep learning
        - Hanette Le, Allen Yabut
    - From the facial recognition, break it down into facial landmarks the face (eyes, nose, lips etc..)

        - Terrence So
    - Put proportional values of each part compared to the face and location
    - Store and assign these values to each picture
        - Andrew Nguyen
    - Find heuristic that compares the input picture to the database of pictures and returns the picture with the character that the input picture looks like the most
        - Htoo Paing
    - Set up UI for the game, the loading screen will continually cycle through and flash every picture in the input database for a set period of time until an ideal match was found
        - Allen Yabut