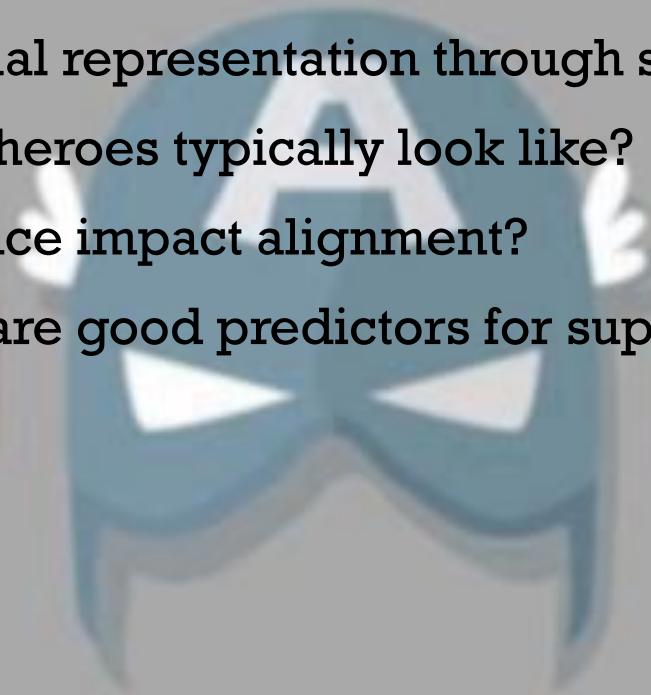




By Sardeep Virk

QUESTIONS

- What does social representation through superheroes look like?
- What do superheroes typically look like?
- Does appearance impact alignment?
- What features are good predictors for superhero alignment?



DATA BACKGROUND

- Alignment – whether a superhero is good, bad, or neutral. (For the purposes of this study, the focus will be only on good or bad alignments)
- Dataset taken from <https://www.kaggle.com/claودیodavi/superhero-set/data>
- Contains 11 features and 734 superheroes
- For the purposes of this analysis new features were added through the process of feature creation(height2, weight2, good, bad, hair, and no hair)

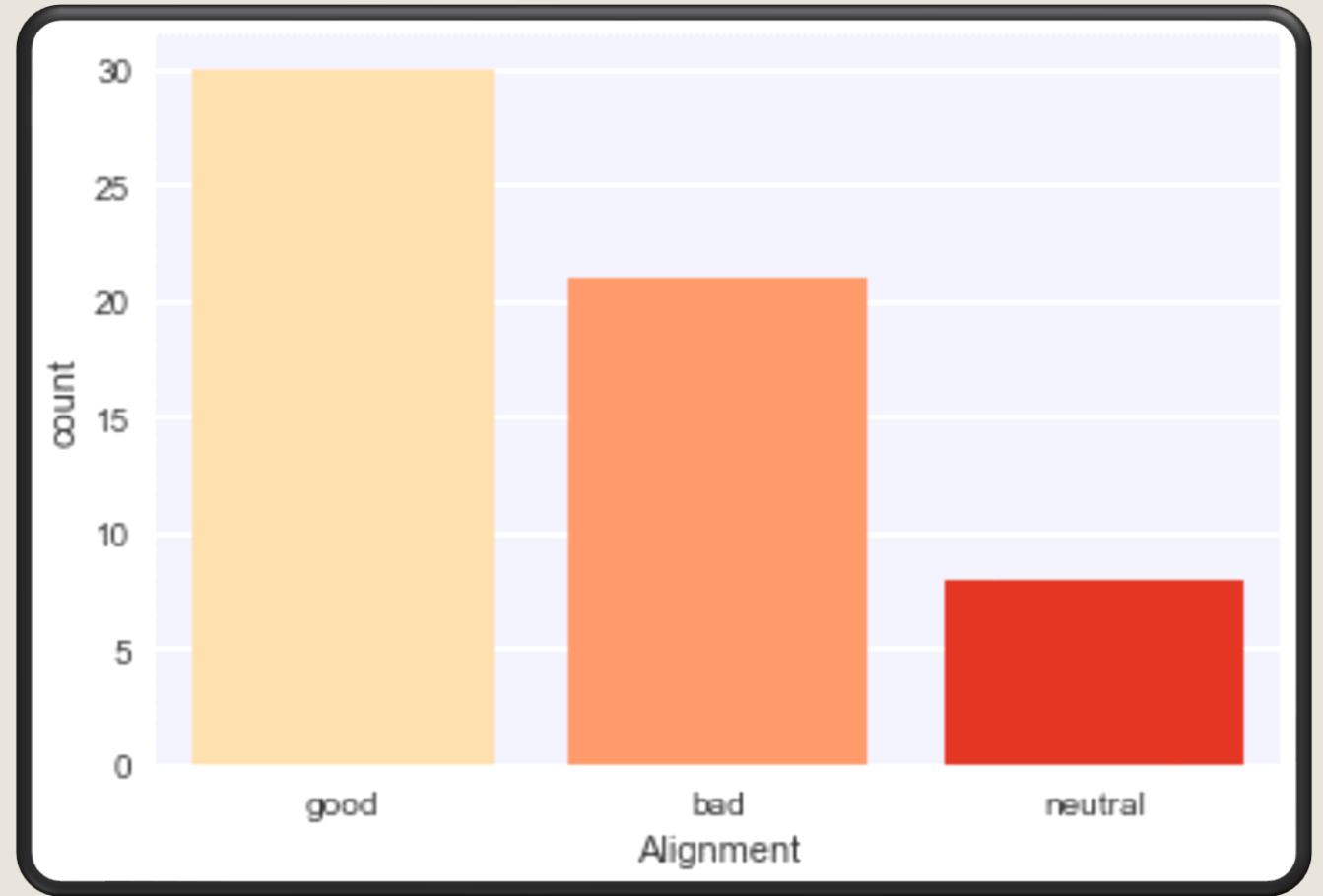
TESTED FEATURES

- Height(Tall, Short)
- Weight(Small, Big)
- Hair or No Hair
- Gender
- Race
- Skin Color

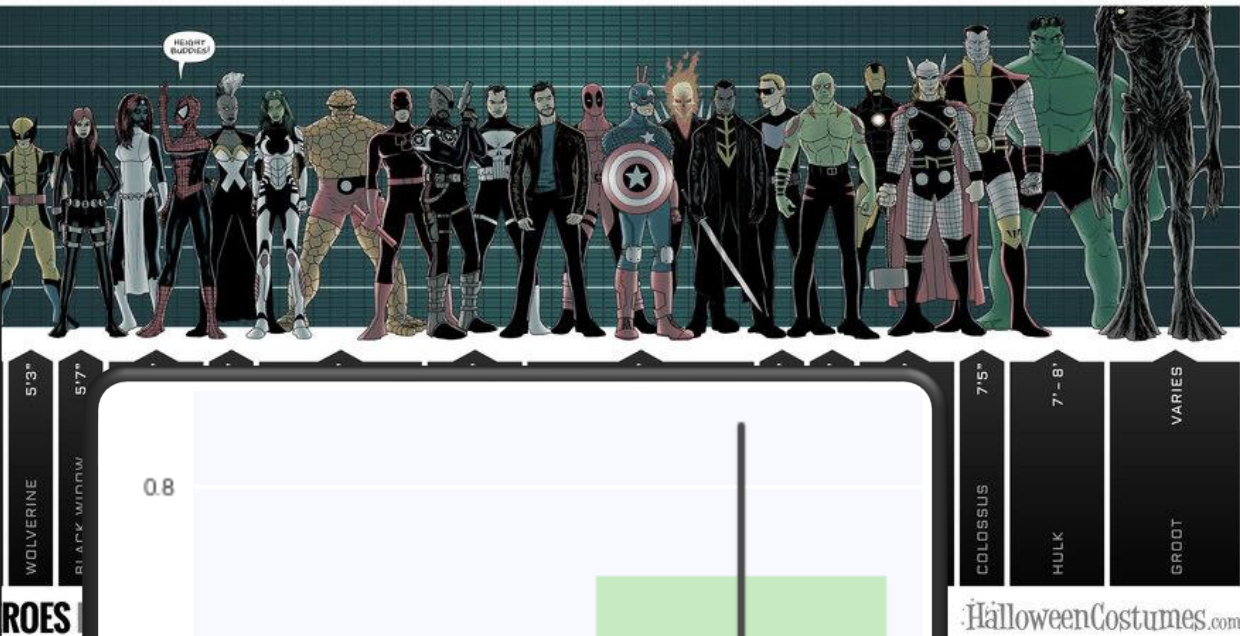
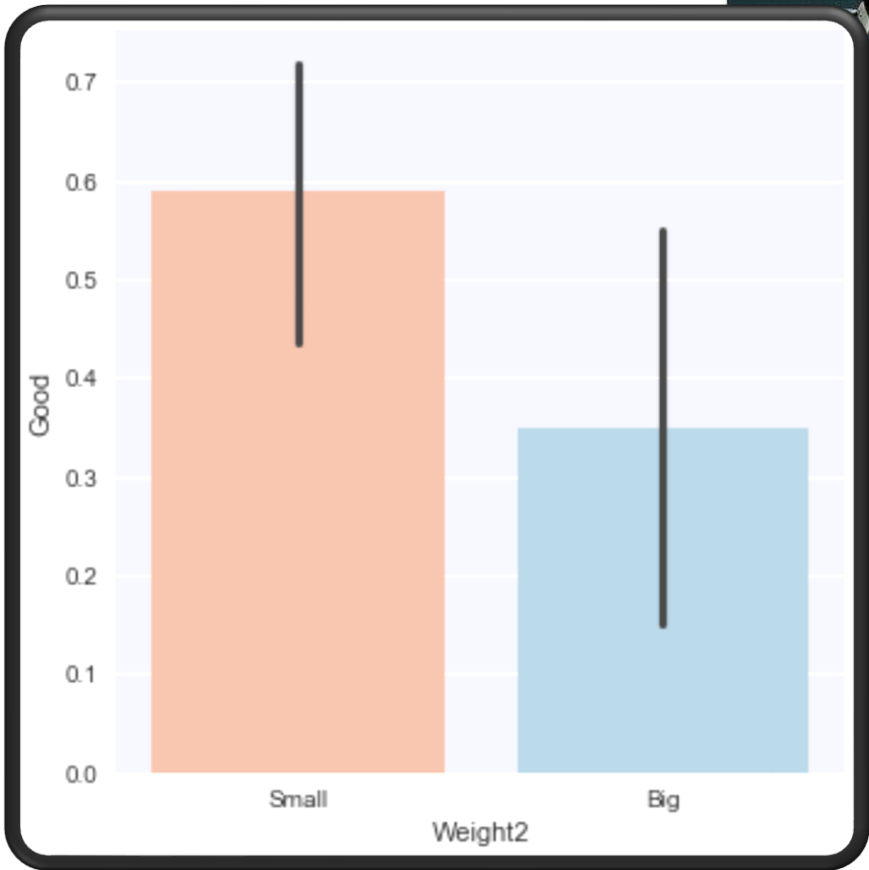


ALIGNMENT

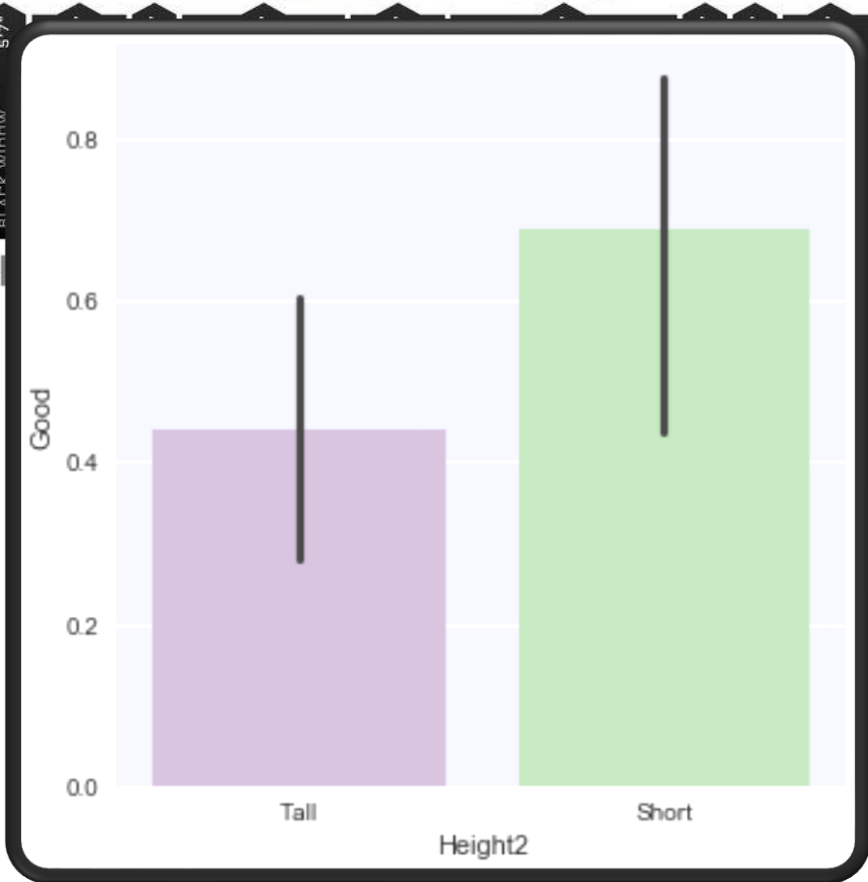
- Majority of superheroes trend good
- For purposes of this analysis only looked at good and bad superheroes



HEIGHT & WEIGHT

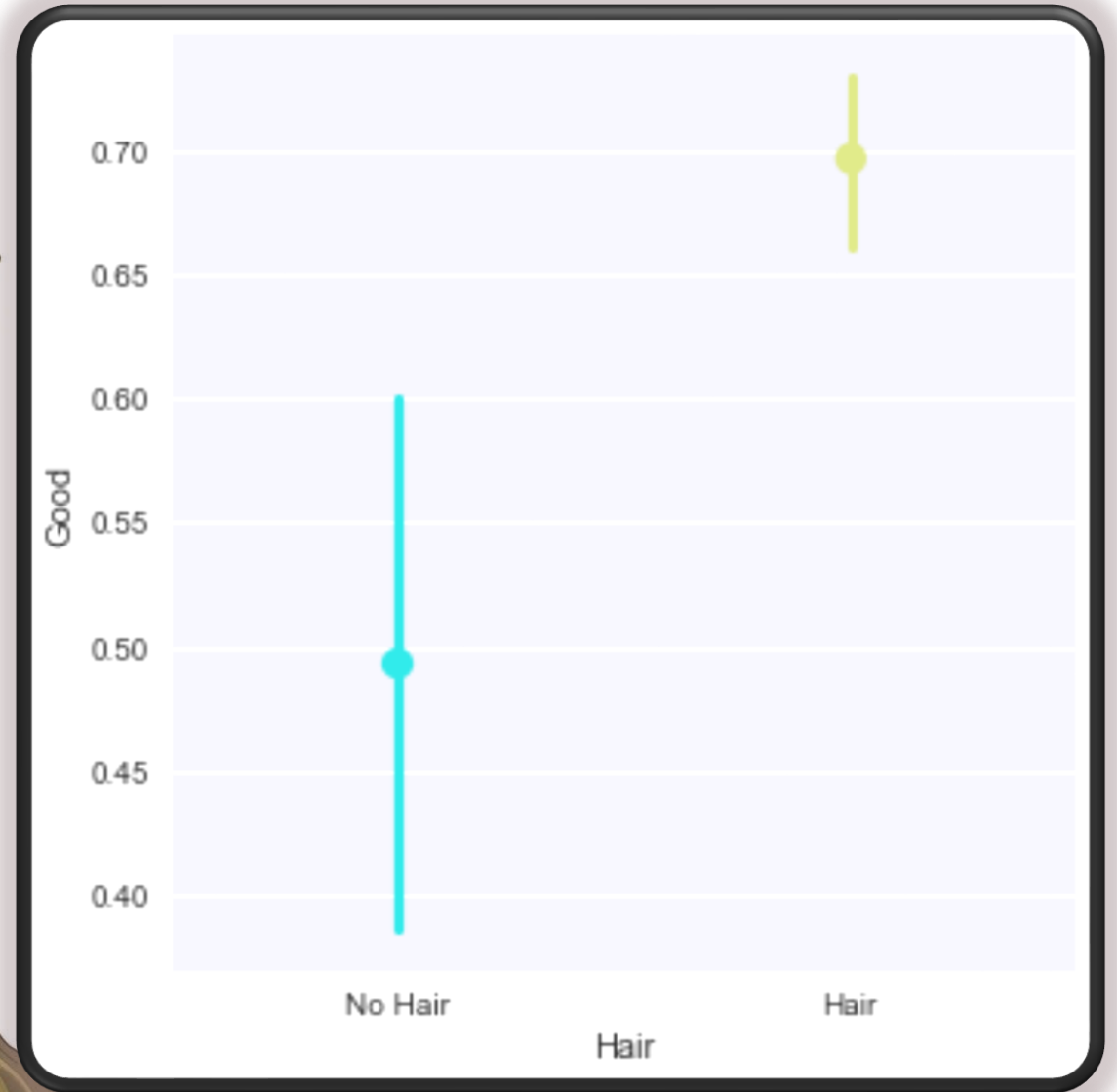
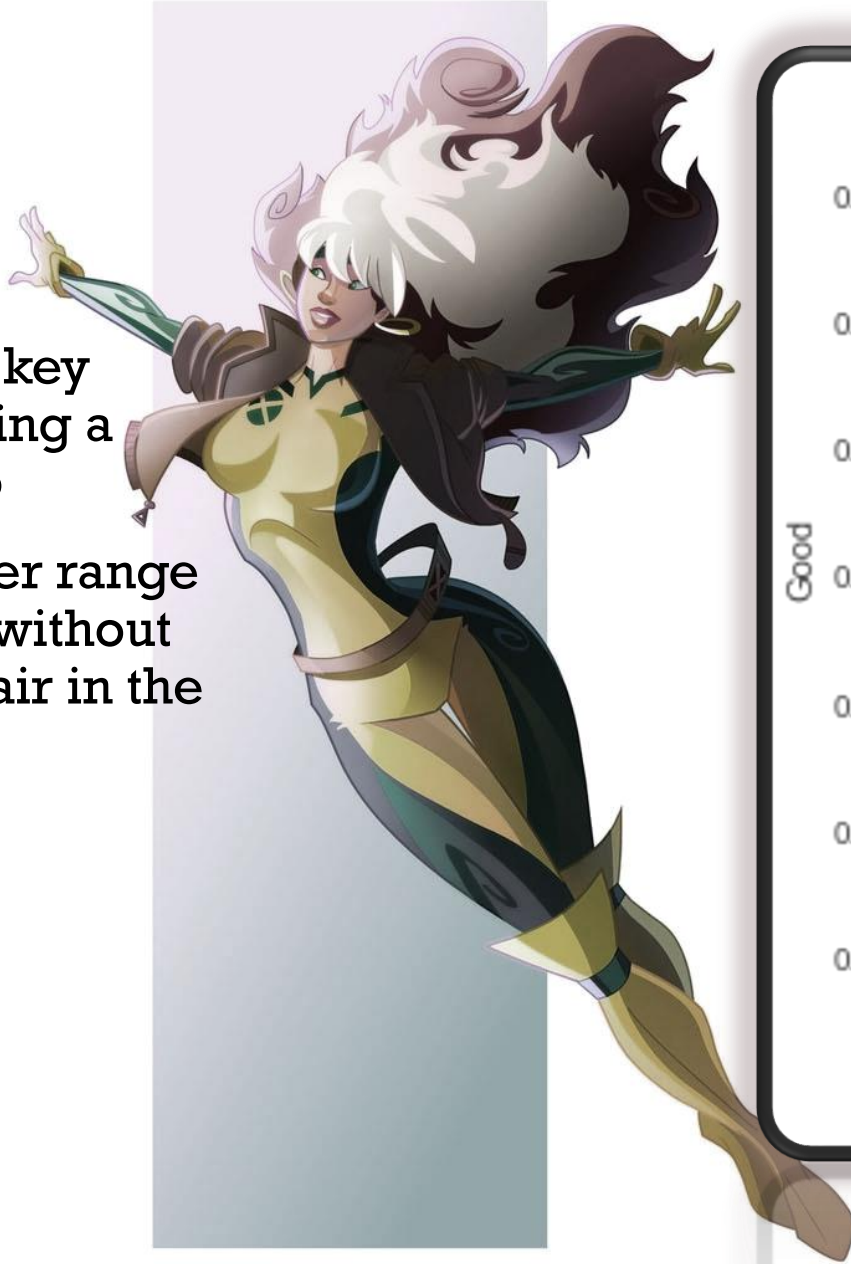


- Superheroes with a small weight and short height trend more likely to be good



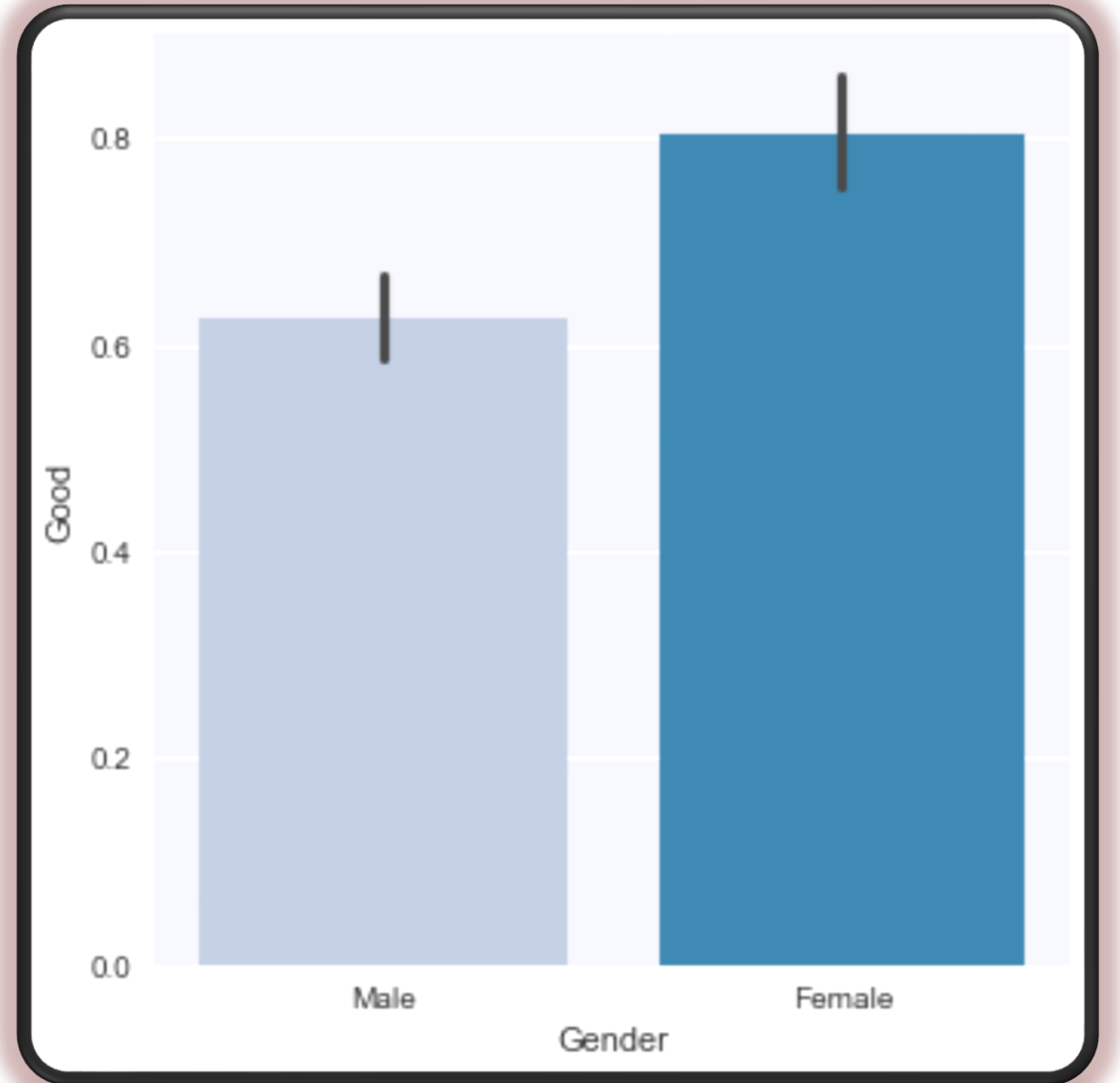
HAIR

- Having hair is a key indicator for being a good superhero
- There is a greater range of superheroes without hair than with hair in the good alignment



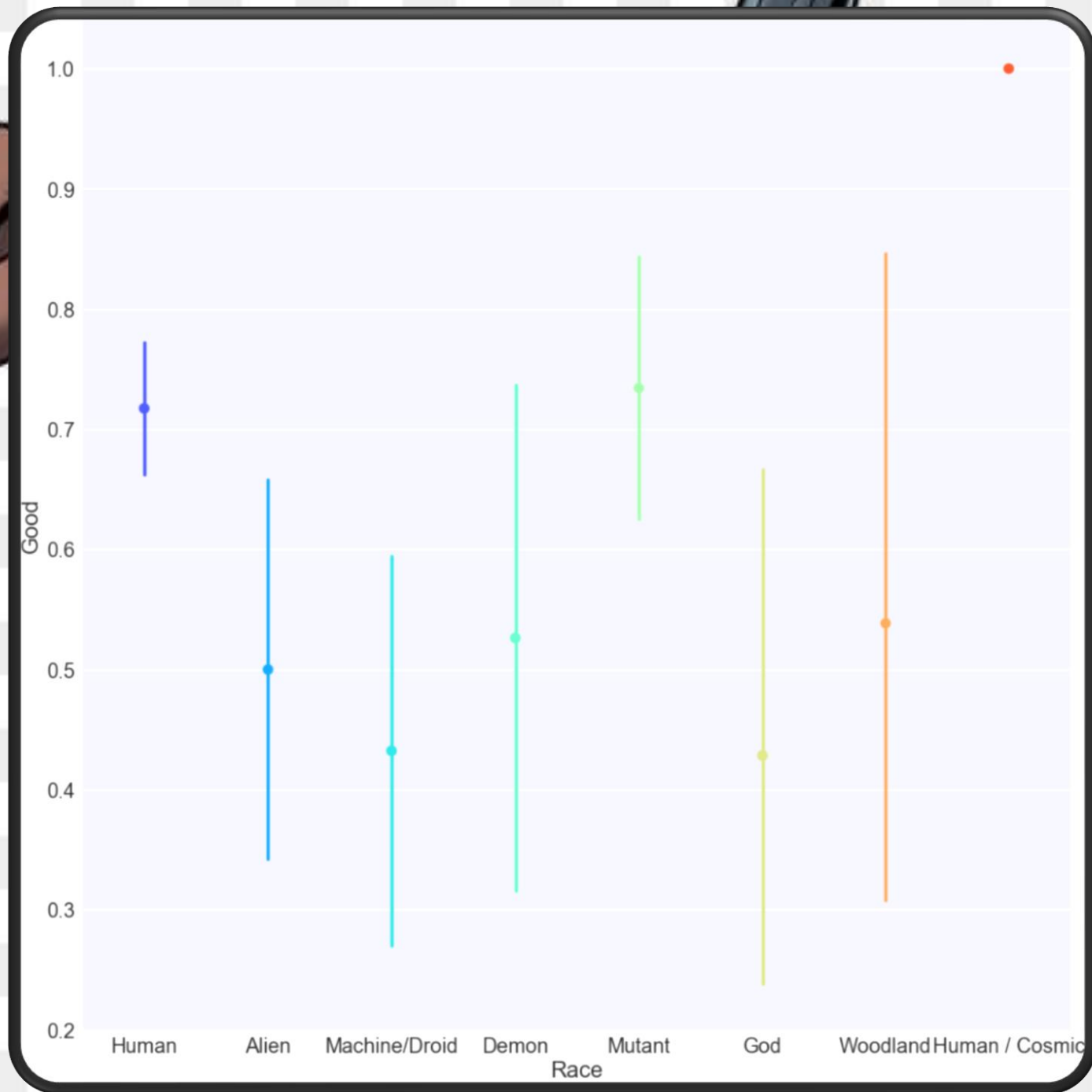
GENDER

- Females trend more likely to be good than males
- There is a greater number of females in the good alignment



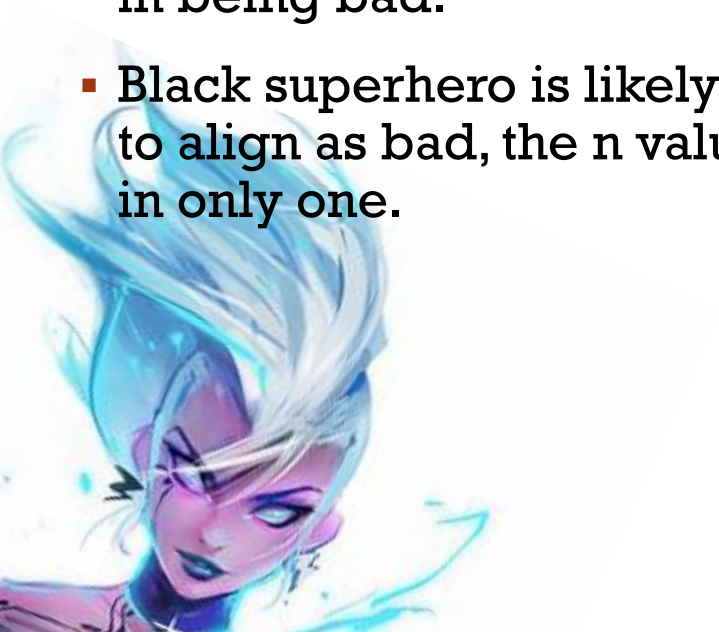
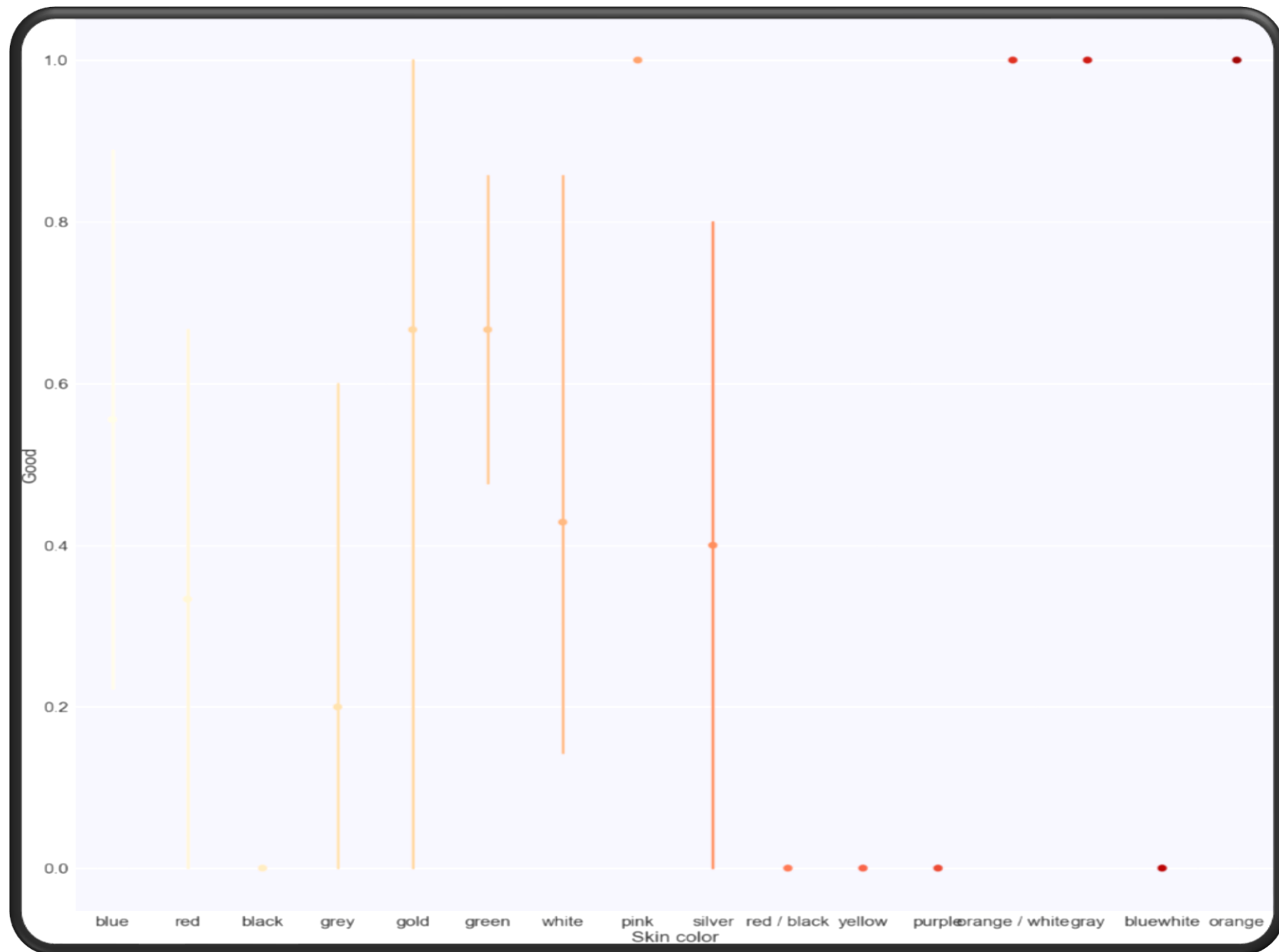
RACE

- Humans and Mutants trend more likely to be good
- Gods and Machine/Droids trend more likely to be bad.
- Humans and Mutants possess the smallest range for good alignment



SKIN COLOR

- Most notable colors were blue, red, grey, and green since majority of superheroes are these colors.
- Grey superheroes illustrate more of a chance in being bad.
- Black superhero is likely to align as bad, the n value in only one.



RANDOM FOREST

- X= Gender + Race + Skin color + Hair + Height + Weight
- Y= Good
- Accuracy = 0.966

Feature	Importance
Hair_Hair	0.099285
Skin color_red	0.062541
Weight2_Small	0.062228
Hair_No Hair	0.060636
Skin color_green	0.053897
Race_Alien	0.050710
Race_Mutant	0.047263

CONCLUSION

- Short and small superheroes trend more likely to be good
- Having hair trends good as well
- Females trend more likely to be good
- Grey spectrum skin colors trend more likely to bad
- Human and Mutant races trend more likely to be good



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