



# My Dog Ate my Match Profile

Mohit Bhole & Andria McIntyre

“Like Owner, Like Dog” (Soerboe, 2018)

# Problem

- Determining personality is important for making connections, but self-administered personality analysis and tests are unreliable
  - Pros: Convenient
  - Cons: Conscious and unconscious bias
    - (Caldwell-Andrews et al., 2000)
- Peer-administered personality tests are more reliable
  - Pros: Less bias and social desirability influence
    - (Cheek, Jonathan M)
  - Cons: Not convenient or possible in many applications
- Combination system required
  - Peer administered reliability and self-administered convenience

# Solution

- Use pets as peers
- Pet and owner personalities are directly correlated
  - (Turcsán, Borbála, et al., 2012)
  - Research applies to cats and dogs
- Owners report their pet's personality to learn their own personality
  - Limited bias or deception (reliable)
  - Convenient
  - Bonus!—Pets will likely be compatible with their owner's human matches, leading to better relationships for both pets and humans

# Product

- Web application for creating romantic and platonic connections between pet owners
- Steps:
  1. Users describe pet personality through adjectives and essay
  2. Processed adjectives and essay using NRC Word-Emotion Association Lexicon to assign emotional meaning to words in pet description
  3. Used SVM, Decision Tree, Naïve Bayes, Logistic Regression, and Random Forest in combination to predict Big-5 personality trait profile
    - (Majumder, Navonil, et al., 2017)
    - Big 5 Traits: Openness, Agreeableness, Neuroticism, Extraversion, Conscientiousness
  4. Found Euclidian distance between features of pet profiles to determine best match between pets—consequentially matching humans too

Demo Time!

# Conclusion

- Analyzing pet personality to determine human compatibility appeals to those seeking real connections between both animals and humans
- This will help pet-owning singles find what they're looking for: accurate dating profiles and compatible pets!

# Works Cited

- Caldwell-Andrews, Alison, et al. “Effects of Response Sets on NEO-PI-R Scores and Their Relations to External Criteria.” *Journal of Personality Assessment*, vol. 74, no. 3, 2000, pp. 472–88. Crossref, doi:10.1207/s15327752jpa7403\_10.
- Cheek, Jonathan M. “Aggregation, Moderator Variables, and the Validity of Personality Tests: A Peer-Rating Study.” *Journal of Personality and Social Psychology*, vol. 43, no. 6, 1982, pp. 1254–69. Crossref, doi:10.1037/0022-3514.43.6.1254.
- Majumder, Navonil, et al. “Deep Learning-Based Document Modeling for Personality Detection from Text.” *IEEE Intelligent Systems*, vol. 32, no. 2, 2017, pp. 74–79. Crossref, doi:10.1109/mis.2017.23.
- Turcsán, Borbála, et al. “Birds of a Feather Flock Together? Perceived Personality Matching in Owner–Dog Dyads.” *Applied Animal Behaviour Science*, vol. 140, no. 3–4, 2012, pp. 154–60. Crossref, doi:10.1016/j.applanim.2012.06.004.