# **Finding Bigfoot**

# **Katie Briggs Winter 2020** <https://github.com/Briggskm9/DSC680>

# Which Domain?

1. Full text and Geocoded dataset from The Bigfoot Field Research Organization (BFRO), data.word, with three files, brfo\_report\_locations.csv, bfro\_reports.json, and bfro\_reports\_gecoded.csv. <https://data.world/timothyrenner/bfro-sightings-data>
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3. Dobson, J., (2020), Televised Expedition May Prove The Elusive Beast Is Real, Forbes, Retrieved from: <https://www.forbes.com/sites/jimdobson/2019/11/22/in-search-of-bigfoot-a-televised-expedition-may-prove-the-elusive-beast-is-real/?sh=2ac546a43ddd>
4. The Bigfoot Field Researchers Organization, Founded in 1995 and the only scientific research organization exploring bigfoot. A website that allows documentation of bigfoot sighting and evidence. Retrieved from: <https://www.bfro.net/>
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6. Guiming Wang, Machine learning for inferring animal behavior from location and movement data, Ecological Informatics, Volume 49, 2019, Pages 69-76, ISSN 1574-9541, <https://doi.org/10.1016/j.ecoinf.2018.12.002>. (https://www.sciencedirect.com/science/article/pii/S1574954118302036)

Abstract: Movement ecology has rapidly advanced owing to recent developments of animal-attached devices and wide applications of sophisticated statistical and machine learning techniques in analysis of animal movement data. Global Positioning System (GPS) transmitters used for estimating animal locations and tri-axial accelerometers used for measuring the 3-dimensional accelerations of animal's motion aid researchers in collecting location and locomotion data at fine spatial and temporal scales.

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2. Maekawa, T., Ohara, K., Zhang, Y. et al. Deep learning-assisted comparative analysis of animal trajectories with DeepHL. Nat Commun 11, 5316 (2020). <https://doi.org/10.1038/s41467-020-19105-0>
3. Dios, E., (2021), Using MapQuest API to Get Geo Data, Retrieved from: <https://towardsdatascience.com/tagged/geocoding>
4. Giday, A., (2016), A Million Geocode Data Visualization with ggplot2, Retrieved from: <https://rstudio-pubs-static.s3.amazonaws.com/239436_cc5ab5d271ca4c229c01e33d0788b49d.html>

# Which Data?

The dataset I will be using is the brfo\_report\_locations.csv from the website data.world, <https://data.world/timothyrenner/bfro-sightings-data>.

# Research Questions? Benefits? Why analyze these data?

Travel Channel has come out with a new television show that claims they use an “advanced data algorithm” to track the migration pattern of the creature, Bigfoot. I want to know if their claims are possible to do.

# What Method?

First, I will use R and Python to perform exploratory data analysis, as well as clean the data. I will handle missing values and the coordinates for geocoding.

# Potential Issues?

Some challenges include insufficient data, missing data, or incorrect data. The BFRO does not have a standard way of collecting data on their website. Which leaves null data, or data that can somewhat be unreliable.

# Concluding Remarks

The Travel Channel claims that their television show is conducting scientific exploration of the primate like creature, Bigfoot. They use the algorithm to find out the best possibility to find the creature within a 17-day timeframe and at a specific location. With the increase growth of technology, it is becoming harder for Bigfoot to remain hidden. They use drones, thermal devices, LIDAR and other new technology to collect evidence.

# References:

[1] Full text and Geocoded dataset from The Bigfoot Field Research Organization (BFRO), data.word, with three files, brfo\_report\_locations.csv, bfro\_reports.json, and bfro\_reports\_gecoded.csv. <https://data.world/timothyrenner/bfro-sightings-data>