

Data Appendix

Overview: One large dataset was analyzed for this project, which contained images of fractured and not fractured bones, a dataset.csv that contained values corresponding to each image, and other folders containing annotations for the dataset and other utilities which went unused. Since only two portions of the larger dataset were used, this appendix will focus on those.

This dataset can be found at https://figshare.com/articles/dataset/The_dataset/22363012.

Section 1: images

This dataset contains a collection of x-rays of bones. There is no defined measurement associated with this data as that is found in dataset.csv.



Section 2: dataset.csv

This dataset contains a mapping from images using their filenames to data about that image, including what the image is of, how the picture will appear, and if the image contains a fracture. The measure of this portion are details corresponding to the images in the previous section.

Variable	Description	Sample Response
image_id	Image file name with a .jpg extension	IMG00000000.jpg
hand	A binary value representing if the image contains a hand	0, 1
leg	A binary value representing if the image contains a leg	0, 1

hip	A binary value representing if the image contains a hip	0, 1
shoulder	A binary value representing if the image contains a shoulder	0, 1
mixed	A binary value representing if the image contains scans of different body parts	0, 1
hardware	A binary value representing if the image contains hardware	0, 1
multiscan	A binary value representing if the image contains multiple scans	0, 1
fractured	A binary value representing if the image contains a fractured bones	0, 1
fracture_count	A number representing the number of fractures in the image	0, 1, 2, 5
frontal	A binary value representing if the image is taken from the front	0, 1
lateral	A binary value representing if the image is taken from the side	0, 1
oblique	A binary value representing if the image is taken at an angle between the front and side	0, 1