Re: Cat Accelerometer Training Data Availability

Michelle Smit <M.Smit@massey.ac.nz>
Tue 05/03/2024 20:47
To:Oakleigh Wilson <oaw001@student.usc.edu.au>

📎 1 attachments (659 bytes)
Model_Meta.csv;

Hi Oakleigh,

I have shared two foldes with you, containing csv files for the raw accelerometer data and the annotated data. You should be able to download the files.

Attached to this email is a meta file, containing start and end times for the annotated data, as the accelerometers started collecting data before they were put on the cats, so the start times in this file are particularly important.

Let me know if you need anything else.

Cheers,
Michelle

From: Oakleigh Wilson <oaw001@student.usc.edu.au>
Date: Thursday, 29 February 2024 at 23:34
To: Michelle Smit <M.Smit@massey.ac.nz>
Subject: Re: Cat Accelerometer Training Data Availability

Hi Michelle,

Hope the Netherlands is treating you well and you're enjoying your holiday! Sounds exciting! Let me know if you have any issues with the new code when you get back and I'll try to make the instructions and explanation clearer 🙂
The raw files and 1 second annotated behaviours would be fantastic, thank you so much! I won't be doing any behavioural decoding (just model testing) with the data, so the error in stitching them back together should have a very minimal effect anyway.

Thank you again,
Oak

From: Michelle Smit <M.Smit@massey.ac.nz>
Sent: 29 February 2024 04:34
To: Oakleigh Wilson <oaw001@student.usc.edu.au>
Subject: Re: Cat Accelerometer Training Data Availability

Hi Oakleigh,

Sounds like a very interesting PhD.

And good to know that the code was not fully correct. I will have a look at the code and try the adjustments and see how the models turn out! Very curious to see if they improve and become more consistend than reported in our paper. Would love to talk about the possible implications and expand some of my own knowledge, but I am currently in The Netherlands for a holiday, so might want to hold off till I get back to New Zealand, given the time difference.

I can give you access to the raw accelerometer data (x,y,z values, collected at 30 Hz), but there is no annotated dataset to match that one. I only exported the annotated data per 1 second, though you

can probably merge the 1 second annotated data with the 30Hz raw accelerometer data based on part of the timestamp. Have to take into account some level of error then though.

I have all the raw files on my onedrive, so I will have to give you access to the folder, from where you can then download the files (csv format). Let me know if you want the raw files and I will make sure to share the folder with you.

Cheers,
Michelle

From: Oakleigh Wilson <oaw001@student.usc.edu.au>
Date: Monday, 26 February 2024 at 05:26
To: Michelle Smit <M.Smit@massey.ac.nz>
Subject: Cat Accelerometer Training Data Availability

Dear Michelle Smit,

My name is Oakleigh and I am a PhD student at the University of the Sunshine Coast, Australia, currently undertaking a PhD on optimising machine learning processes for animal accelerometer behaviour recognition. For my second chapter I'm attempting to understand the mathematical relationship between underlying data structure and optimal preprocessing settings, and, for this analysis, am seeking accelerometer training data from as many different species as possible.

I noted that in your recent paper "The Use of Triaxial Accelerometers and Machine Learning Algorithms for Behavioural Identification in Domestic Cats (Felis catus): A Validation Study", you've made the behaviour classifications and the feature data available at figshare but the raw data was too large to share. Would I be able to get a copy of the raw data from you? For my analysis, I'm looking for the raw accelerometer readings time-matched to annotated behaviours.

I'm more than happy to explain more about my research or answer any questions. Naturally, this contribution would also be cited and acknowledged in the resultant research paper.

Additionally, some bad news... Unfortunately, the code used in the implementation of the SOM in that paper was not actually correct... The original creators of that code have since updated their github to reflect some key changes, which you can find here - https://github.com/cclemente/Animal_accelerometry under the "Notice" section, which links to my github where I have made further corrections. Just wanted to let you know. I'm also more than happy to talk through that finding and implications too!

Thank you,

Oakleigh Wilson

_____

PhD Candidate

School of Science, Technology, and Engineering

University of the Sunshine Coast