Geoscientific Model Development Discussions

Geosci. Model Dev. Discuss., author comment AC1
https://doi.org/10.5194/gmd-2021-271-AC1, 2021

Reply on CEC1

Hisashi Sato and Takeshi Ise

Author comment on "Predicting global terrestrial biomes with the LeNet convolutional neural network" by Hisashi Sato and Takeshi Ise, Geosci. Model Dev. Discuss., https://doi.org/10.5194/gmd-2021-271-AC1, 2021

Dear Geosc. Mod. Dev. Exec. Editor,

Thank you very much for managing our manuscript.

LeNet CNN is just a theory without version number, and hence we can only cite the original paper (Lecun et al., 1998) on the manuscript. For all of our simulations, we employed DIGITS 6.0.0, which implements LeNet CNN along with other CNNs. On the job screen of the DIGITS 6.0.0, we can check how DIGITS actually codes the LeNet CNN (please refer Figure 14 of https://docs.nvidia.com/deeplearning/digits/digits-user-guide/index.html).
So, instead of uploading the code, we would like to add the following phrase on the manuscript in the next opportunity for revising the manuscript.

Insert on line 26 of the Supplementary Information:
To see how DIGITS actually implements the CNN, its internal code can be viewed using the DIGITS menu (on the "New image model" screen, click the "Custom Network tab" and select "TensorFlow").

For your concern that the title is too generic, we will replace the original title "Predicting Global Terrestrial Biomes with Convolutional Neural Network" with "Predicting Global Terrestrial Biomes with the LeNet Convolutional-Neural-Network". This replacement will be also done in the next opportunity for revising the manuscript.

Best,
Hisashi SATO (on the behalf of all co-authors)