

Afleveringsopgave

Mandatory 1: Deploy your own Keras model to a webserver.

Your task here is to deploy one of your Keras models to a webserver. A user should be able to enter some input in the browser, like shown in the example below. Here, the user did enter 0 and 0, and the model then predicted the NAND gate value TRUE. It also shows the actual probability = 0.999.

NAND gate Predictor, made with Keras, Tensorflow

Input A:

Input B:

The result is TRUE, since prediction=0.9993459

The input values can be strings, numbers, images, .csv files etc. You decide.

It can be either Classification (binary or categorical) or Linear Regression (f.x. Age, Height)

It HAS to be a model, you have trained yourself.

Practical steps:

1. Train a model, using Python. Use any data you like.
2. Save the model to a .h5 file
3. Use this [guide](#) to set up a Flask (Python webserver) on a Ubuntu server on Amazon AWS or Microsoft Azure. You can pick the short version, which is to run a script, or you can perform the 11 steps manually. It is up to you.
4. Adjust the templates/index.html and app.py files, so your solution works.
5. If, for some reason, you can't deploy to Azure, you are allowed to run Flask on your local machine instead.

Alternate exercise (instead of the one above):

You may also chose to create and train a model for the following dataset:

<https://www.kaggle.com/datasets/dipam7/student-grade-prediction>

Demonstrate how the model can predict a new student, and the accuracy.

You are allowed to work in groups, but then the complexity should be that much greater.

After you have solved the exercise, make a screencast video with the following content:

Part 1: Max 30 seconds: Demonstrate the app in action.

Part 2: Max 60 seconds: Explain what you have learned while building this app.

Max length of video: **90 seconds in total.**

Recording tool (free): <https://screencast-o-matic.com/>

Handin: Upload only the **link** to your video here on Fronter, so the teacher can view it online.

Do **NOT** upload any file to Fronter.

Feedback: After handin, the teacher will evaluate your work and give written feedback on Fronter.

Deadline, in order to get feedback: **14.10.2022 at 23:59**

Handins after the deadline will not get any feedback.