



Deep learning: an introduction through image processing

Project: GrAlder, an automatic grade recognition tool

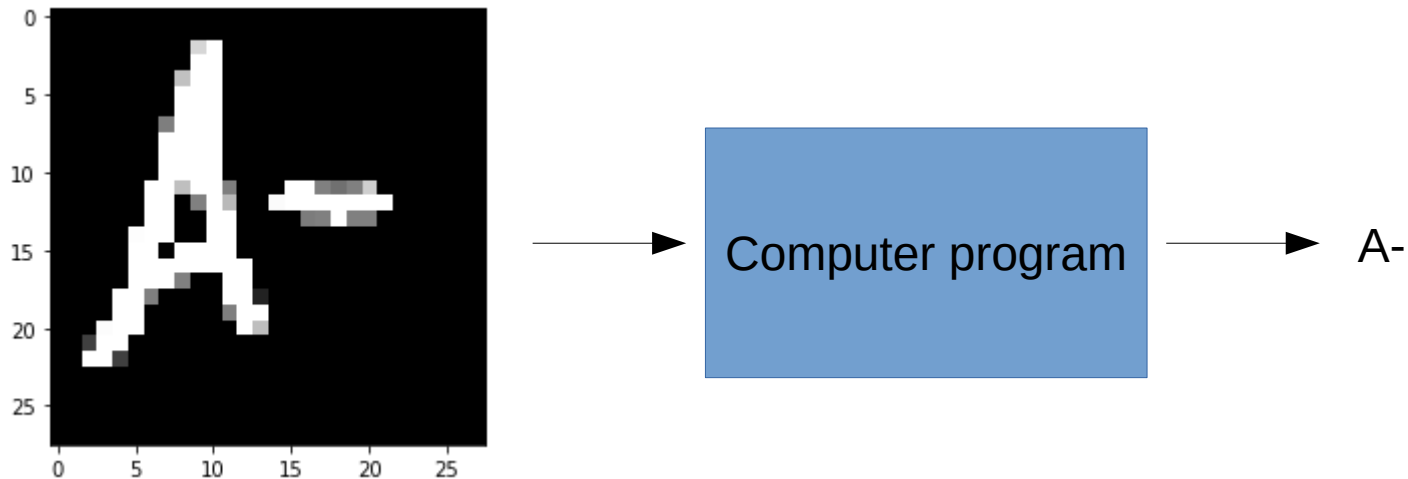
February 14th 2025

1.

**Grade recognition:
problem presentation**

Project objective

We want to create a computer program capable of recognizing handwritten grades.



The neural network will have to recognize grades from A+ to E-.

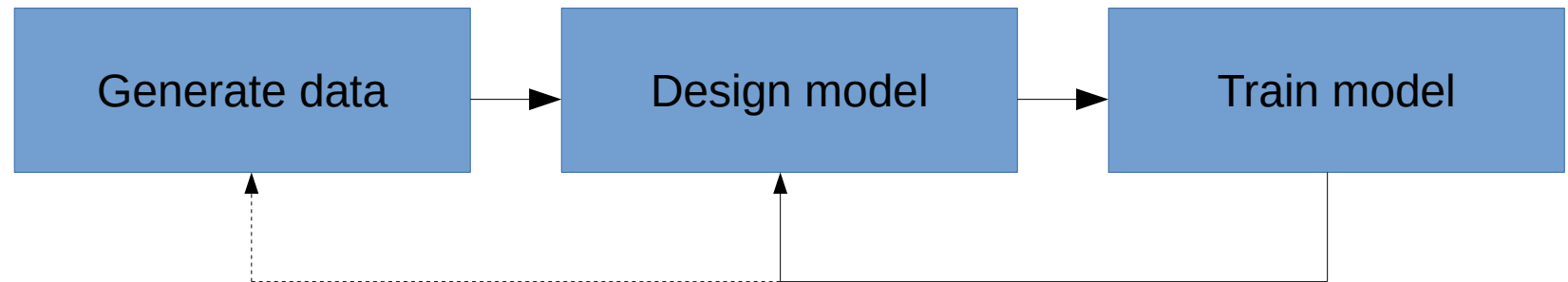
You will have to generate your dataset, and then train a model.

A Colab notebook is provided. Don't hesitate to tweak the parameters: increase the size of the pictures for example, try different neural network models, different parameters in the image generators...

Recommendations

Get organized. Think twice about how you're going to tag your dataset.

Budget your time.



2.

**Grade recognition:
expected results**

The goal of this project is to showcase that you master the subject of neural networks and deep learning. You need to explain how you proceed and why you take your decisions during the development of your solution to the project.

The work to achieve can be split in two parts: data collection, then model training.

For each group, it is expected you deliver the Python notebook you used for the project



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