

Quebec  
Artificial  
Intelligence  
Institute



Mila

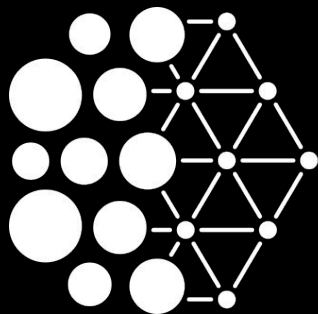
## Tutorial : general information

Arsène Fansi Tchango & Francis Grégoire  
Applied Research Scientists, Mila  
[arsene.fansi.tchango@mila.quebec](mailto:arsene.fansi.tchango@mila.quebec)  
[francis.gregoire@mila.quebec](mailto:francis.gregoire@mila.quebec)

# General information

- Tutorials and presentations are available on the [Github of the IVADO/MILA's Deep Learning School](#)
- Tutorials can be loaded [in Colab](#).
- Each tutorial has two versions:
  - *Name\_to\_complete.ipynb*: tutorial with code to complete and questions to answer.
  - *Name\_solutions.ipynb*: complete tutorial with potential answers.

Quebec  
Artificial  
Intelligence  
Institute



Mila

## Tutorial : Data

Arsène Fansi Tchango & Francis Grégoire  
Applied Research Scientists, Mila  
[arsene.fansi.tchango@mila.quebec](mailto:arsene.fansi.tchango@mila.quebec)  
[francis.gregoire@mila.quebec](mailto:francis.gregoire@mila.quebec)

# Data Tutorial

- Goals:

- Get familiar with Google Colab, Jupyter Notebooks and Python.
- Understand the data used in a machine learning project.
- Learn the importance of:
  - data visualization
  - using training/validation/test datasets
  - using dataloaders
  - training on small/large datasets
  - training on balanced/unbalanced datasets
  - comparing metrics on training and validation sets
- Steps to follow to obtain reproducible results.

- Keywords:

- training/validation/test datasets, data visualization, shuffling, dataloaders, data augmentation, unbalanced datasets, reproducibility.