

# Universidad: Mila, Montreal

## Sugerencias de software

### References

Marcar esta página

- [Python](https://www.python.org/)  
(<https://www.python.org/>)
- [Julia](https://julialang.org/)  
(<https://julialang.org/>)
- [The Zen of Python](https://www.python.org/dev/peps/pep-0020/)  
(<https://www.python.org/dev/peps/pep-0020/>)
- [A Foolish Consistency is the Hobgoblin of Little Minds](https://www.python.org/dev/peps/pep-0008/#a-foolish-consistency-is-the-hobgoblin-of-little-minds)  
(<https://www.python.org/dev/peps/pep-0008/#a-foolish-consistency-is-the-hobgoblin-of-little-minds>)

### Python Libraries

- [NumPy](https://numpy.org/)  
(<https://numpy.org/>)
- [SciPy](https://www.scipy.org/)  
(<https://www.scipy.org/>)

### Machine Learning

- [scikit-learn](https://scikit-learn.org/stable/)  
(<https://scikit-learn.org/stable/>)

### Deep Learning

- [PyTorch](https://pytorch.org/)  
(<https://pytorch.org/>)
- [TensorFlow](https://www.tensorflow.org/)  
(<https://www.tensorflow.org/>)
- [Keras](https://keras.io/)  
(<https://keras.io/>)

## **Data Visualization**

- [plotly](https://plot.ly/)  
(<https://plot.ly/>)
- [matplotlib](https://matplotlib.org/)  
(<https://matplotlib.org/>)
- [Visdom](https://github.com/facebookresearch/visdom)  
(<https://github.com/facebookresearch/visdom>)
- [seaborn](https://seaborn.pydata.org/)  
(<https://seaborn.pydata.org/>)

## **Data Analysis**

- [pandas](https://pandas.pydata.org/)  
(<https://pandas.pydata.org/>)

## **Coding Environments**

- [IPython Interactive Computing](https://ipython.org/)  
(<https://ipython.org/>)
- [Jupyter](https://jupyter.org/)  
(<https://jupyter.org/>)
- [Google Colab](https://colab.research.google.com/)  
(<https://colab.research.google.com/>)

## **Library Management**

- [Conda](https://docs.conda.io/en/latest/)  
(<https://docs.conda.io/en/latest/>)
- [Pip](https://pip.pypa.io/en/stable/)  
(<https://pip.pypa.io/en/stable/>)
- [Breast Cancer Wisconsin Data Set](https://www.kaggle.com/uciml/breast-cancer-wisconsin-data)  
(<https://www.kaggle.com/uciml/breast-cancer-wisconsin-data>)
- [Example on Google Colab](https://colab.research.google.com/github/jerpint/ecole_sante_18/blob/master/ecole_medicale.ipynb#scrollTo=H_T_KNhpAp3V)  
([https://colab.research.google.com/github/jerpint/ecole\\_sante\\_18/blob/master/ecole\\_medicale.ipynb#scrollTo=H\\_T\\_KNhpAp3V](https://colab.research.google.com/github/jerpint/ecole_sante_18/blob/master/ecole_medicale.ipynb#scrollTo=H_T_KNhpAp3V))

- [scikit-learn Logistic Regression](https://scikit-learn.org/stable/modules/linear_model.html#logistic-regression)  
([https://scikit-learn.org/stable/modules/linear\\_model.html#logistic-regression](https://scikit-learn.org/stable/modules/linear_model.html#logistic-regression))
- [TensorFlow Computational Graph](https://www.tensorflow.org/api_docs/python/tf/Graph)  
([https://www.tensorflow.org/api\\_docs/python/tf/Graph](https://www.tensorflow.org/api_docs/python/tf/Graph))

### **History of Deep Learning Frameworks**

- [Torch](http://torch.ch/)  
(<http://torch.ch/>)
- [Theano](http://deeplearning.net/software/theano/)  
(<http://deeplearning.net/software/theano/>)
- [Caffe](https://caffe.berkeleyvision.org/)  
(<https://caffe.berkeleyvision.org/>)
- [DL4J](https://deeplearning4j.org/)  
(<https://deeplearning4j.org/>)
- [MXNet](https://mxnet.apache.org/)  
(<https://mxnet.apache.org/>)
- [Chainer](https://chainer.org/)  
(<https://chainer.org/>)
- [Microsoft Cognitive Toolkit](https://docs.microsoft.com/en-us/cognitive-toolkit/)  
(<https://docs.microsoft.com/en-us/cognitive-toolkit/>)
- [ONNX](https://onnx.ai/)  
(<https://onnx.ai/>)
- [fast.ai](https://www.fast.ai/)  
(<https://www.fast.ai/>)
- [Caffe2](https://caffe2.ai/)  
(<https://caffe2.ai/>)

### **PyTorch vs TensorFlow**

- [Framework Usage in Papers Submitted to ICLR](https://www.reddit.com/r/MachineLearning/comments/9kys38/r_frameworks_mentioned_iclr_20182019_tensorflow/)  
([https://www.reddit.com/r/MachineLearning/comments/9kys38/r\\_frameworks\\_mentioned\\_iclr\\_20182019\\_tensorflow/](https://www.reddit.com/r/MachineLearning/comments/9kys38/r_frameworks_mentioned_iclr_20182019_tensorflow/))

- Tensorboard for PyTorch  
(<https://pytorch.org/docs/stable/tensorboard.html>)
- TensorboardX  
(<https://tensorboardx.readthedocs.io/en/latest/tutorial.html#what-is-tensorboard-x>)
- TorchScript  
(<https://pytorch.org/docs/stable/jit.html>)
- TensorFlow.js  
(<https://www.tensorflow.org/js>)
- TensorFlow Lite  
(<https://www.tensorflow.org/lite>)
- TensorFlow Serving Models  
(<https://www.tensorflow.org/tfx/guide/serving>)
- PyTorch Hub  
(<https://pytorch.org/hub>)
- TensorFlow Hub  
(<https://www.tensorflow.org/hub>)
- PyTorch Lightning  
(<https://github.com/PyTorchLightning/pytorch-lightning>)

### **Organized Codebase**

- Object Oriented Programming in Python 3  
(<https://realpython.com/python3-object-oriented-programming/>)
- Flake 8 Style Guide Enforcement  
(<http://flake8.pycqa.org/en/latest/>)
- Example NumPy Style Python Docstrings for Code Documentation  
([https://sphinxcontrib-napoleon.readthedocs.io/en/latest/example\\_numpy.html](https://sphinxcontrib-napoleon.readthedocs.io/en/latest/example_numpy.html))

### **Version Control Systems**

- Git  
(<https://git-scm.com/>)

- [GitHub](https://github.com/)  
(<https://github.com/>)
- [GitLab](https://about.gitlab.com/)  
(<https://about.gitlab.com/>)
- [BitBucket](https://bitbucket.org/product/)  
(<https://bitbucket.org/product/>)
- [BitBucket - What is Version Control](https://www.atlassian.com/git/tutorials/what-is-version-control)  
(<https://www.atlassian.com/git/tutorials/what-is-version-control>)
- [Git - Getting Started - About Version Control](https://git-scm.com/book/en/v2/Getting-Started-About-Version-Control)  
(<https://git-scm.com/book/en/v2/Getting-Started-About-Version-Control>)
- [Version Control System: Get Up to Speed with GIT](https://medium.com/gradeup/version-control-system-get-up-to-speed-with-git-ea25b5cb7329)  
(<https://medium.com/gradeup/version-control-system-get-up-to-speed-with-git-ea25b5cb7329>)

## **Virtual Environments**

- [An Effective Python Environment: Making Yourself at Home](https://realpython.com/effective-python-environment/)  
(<https://realpython.com/effective-python-environment/>)

## **Unit Tests**

- [pytest](https://docs.pytest.org/en/latest/)  
(<https://docs.pytest.org/en/latest/>)

## **Experiment Management**

- (obsolete in TensorFlow 2.0)([https://www.tensorflow.org/guide/summaries\\_and\\_tensorboard](https://www.tensorflow.org/guide/summaries_and_tensorboard))  
(redirect page)(<https://www.tensorflow.org/tensorboard/migrate>)
- [MLflow Tutorial](https://www.mlflow.org/docs/latest/tutorials-and-examples/tutorial.html)  
(<https://www.mlflow.org/docs/latest/tutorials-and-examples/tutorial.html>)
- [Asimov Institute Neural Network Zoo](https://www.asimovinstitute.org/neural-network-zoo/)  
(<https://www.asimovinstitute.org/neural-network-zoo/>)

## **Experiment Management Library**

- [Comet](https://www.comet.ml/site/)  
(<https://www.comet.ml/site/>)
- [Trains](https://github.com/allegroai/trains)  
(<https://github.com/allegroai/trains>)
- [scikit-optimize](https://scikit-optimize.github.io/stable/)  
(<https://scikit-optimize.github.io/stable/>)
- [ax.dev](https://ax.dev/)  
(<https://ax.dev/>)
- [Orion](https://github.com/Epistimio/orion/)  
(<https://github.com/Epistimio/orion/>)

## **Hardware**

- [Benchmarking TPU, GPU, and CPU Platforms for Deep Learning](https://arxiv.org/abs/1907.10701)  
(<https://arxiv.org/abs/1907.10701>)
- [TensorFlow Data Performance](https://www.tensorflow.org/guide/data_performance)  
([https://www.tensorflow.org/guide/data\\_performance](https://www.tensorflow.org/guide/data_performance))

## **Cloud Computing**

- [Google Cloud](https://cloud.google.com/)  
(<https://cloud.google.com/>)
- [Microsoft Azure](https://azure.microsoft.com/)  
(<https://azure.microsoft.com/>)
- [Amazon Web Services](https://aws.amazon.com/)  
(<https://aws.amazon.com/>)
- [Paperspace](https://www.paperspace.com/)  
(<https://www.paperspace.com/>)
- [vast.ai](https://vast.ai/)  
(<https://vast.ai/>)

## **Cloud Computing Cost + Hardware**

- [Stanford DAWN Deep Learning Benchmark](https://dawn.cs.stanford.edu/benchmark/)  
(<https://dawn.cs.stanford.edu/benchmark/>)

- [Best Deals in Deep Learning Cloud Providers](https://towardsdatascience.com/maximize-your-gpu-dollars-a9133f4e546a)  
(<https://towardsdatascience.com/maximize-your-gpu-dollars-a9133f4e546a>)

### **Cloud Computing Pipeline**

- [Django Web Framework](https://www.djangoproject.com/)  
(<https://www.djangoproject.com/>)