Low code Libraries

**Pycaret**

*PyCaret is an open-source, low-code machine learning library in Python that automates machine learning workflows. It is an end-to-end machine learning and model management tool that speeds up the experiment cycle exponentially and makes you more productive.*

**PyCaret Functions**

* compare\_models() – trains all models available in the library, use default hyperparameters, and performance using cross-validation. MAE, MSE, RMSE, R2, RMSLE, MAPE are Regression metrics. Accuracy, AUC, Recall, Precision, F1, Kappa, MCC are Classification metrics.
* create\_model() – creates a single model which we specify using default hyperparameters and evaluate performance.
* tune\_model() – model is passed as estimator and tunes hyperparameter. uses random grid search with pre-defined tuning grids that are customizable.
* ensemble\_model() – accepts trained model, and returns a table with k-fold cross-validated scores of evaluation metrics.
* plot\_model() – used to evaluate the performance of trained ML model.

Features of the latest version include:

* Tuning of hyperparameters of the various model on GPU: LightGBM, XGboost, and Catboost.
* Updated deploy\_model function to support for deployment on GCP as well as Microsoft Azure.
* Plot model function included with ‘scale’ parameter which you can use to control and generate high-quality plots.
* Included Boruta algorithm for enhanced feature engineering.

### H2O AutoML

It is another open-source tool, useful for those starting ML without the experience of coding. It has a combined interface for multiple models and algorithms that simplify the process of training models. With this, you can train models in less time and a few lines of code without in-depth knowledge of ML algorithms. It supports both Python and R languages, which makes it appealing to the newbie as well as the experienced.

For beginners, it helps automate preprocessing, training, validation, and fine-tuning models. Assist advanced users in data engineering and stacking different models. For these reasons, even Kaggle competitors use H2O AutoML. When compared with PyCaret, one should write more code using this if you are not using the web interface. Despite this, it is still easier to train a model by using H2O AutoML. All you need is to write a few lines of code in R or Python.

## No Code ML Platforms

### CreateML

Create ML is a no-code drag and drop tool developed by Apple for mac users. It is an independent macOS application with a bunch of pre-trained model templates. Build your custom models with the help of transfer learning. It has a variety of model types such as **Image Classification, Style Transfer, Sound Classification, Text Classification,** and Recommendation system where you can select the model type and add data, parameters to start training.

Before the training, you can set the iteration count and fine-tune the metrics. For models like style transfer, it provides real-time results on validation data. At last, it generates a CoreML model, which you can test and deploy in IOS applications.

#### Features of CreateML

* By using an easy-to-use app interface, build and train powerful models.
* Using different datasets, train multiple models in a single project.
* Using continuity with the iPhone camera and microphone on mac, you can preview model performance.
* To control model training, you can use options such as pause, save, resume, and extend.
* By using CPU and GPU, train models at blazing speed.
* For better model training performance, use an external GPU.

### Google Cloud Auto ML

AutoML works similar to CreatML, although on the cloud. Google [AutoML](https://cloud.google.com/automl) at present offers Natural Language, Auto ML Translation, Video Intelligence, Vision in the package of ML products. It helps developers with less ML expertise to build models specific to their use case. Users can create custom models that fit their business needs and integrate those into websites and applications. Since it works on the cloud, there is no need to know transfer learning or creation of neural networks by offering out of the box support for wholly tested Deep learning models.

AutoML vision: - Image classification, Object detection, Vision API, Vision product search

### RunwayML

RunwayML is another great ML platform designed for creators and makers. It provides a charming visual interface to train models ranging from object detection, text, and image generation(GANs) to motion capture and other models without writing code. It allows to search models ranging from super-resolution images to background removal and style transfer. It is not free of cost at the time of exporting the model from this application one can leverage the power of pre-trained GAN to synthesize new images from prototypes. One of the highlights is synthesizing pictures as you type sentences by its Generative Engine. Available for Mac, Windows, or can be used on the browser.

Site

<https://www.analyticsvidhya.com/blog/2020/12/top-8-low-code-no-code-ml-libraries-every-data-scientist-should-know/#:~:text=PyCaret%20is%20an%20open%2Dsource,%3A%2F%2Fwww.pycaret.org.>

sololearn practice certificate

<https://www.sololearn.com/certificates/course/en/21404931/1161/landscape/png>

ML algorithms

<https://developer.ibm.com/technologies/data-science/tutorials/learn-classification-algorithms-using-python-and-scikit-learn/>

Azure ML

<https://towardsdatascience.com/azure-machine-learning-service-part-1-an-introduction-739620d1127b>

AWS ML

<https://aws.amazon.com/free/machine-learning/?trk=ps_a134p000006gEZiAAM&trkCampaign=acq_paid_search_brand&sc_channel=PS&sc_campaign=acquisition_IN&sc_publisher=Google&sc_category=Machine%20Learning&sc_country=IN&sc_geo=APAC&sc_outcome=acq&sc_detail=amazon%20web%20services%20machine%20learning&sc_content=Machine%20Learning_e&sc_matchtype=e&sc_segment=477000499106&sc_medium=ACQ-P|PS-GO|Brand|Desktop|SU|Machine%20Learning|Solution|IN|EN|Text&s_kwcid=AL!4422!3!477000499106!e!!g!!amazon%20web%20services%20machine%20learning&ef_id=EAIaIQobChMIn-j3qvzr7wIVI4ZLBR2ETQUKEAAYASAAEgIHmfD_BwE:G:s&s_kwcid=AL!4422!3!477000499106!e!!g!!amazon%20web%20services%20machine%20learning>

Google cloud ML

<https://cloud.google.com/automl>