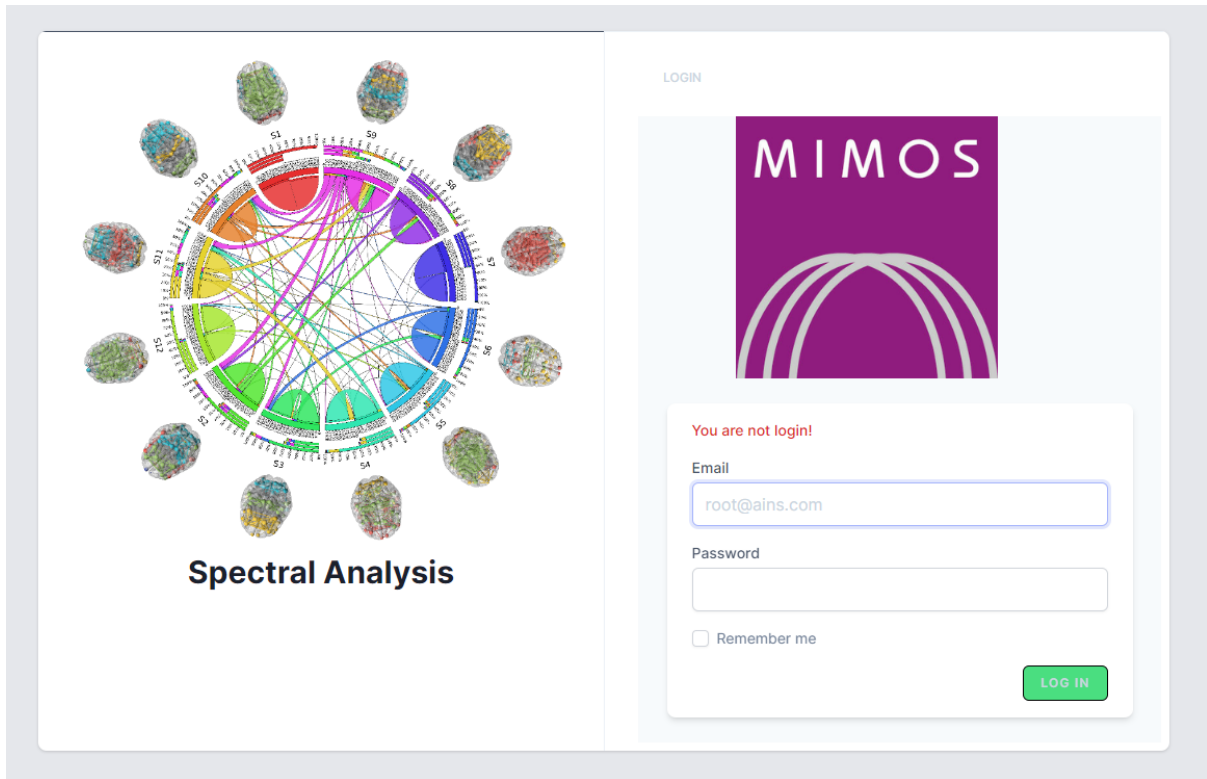


SPECTRAL MIMOS APPLICATION TOUR GUIDE

H2O AUTOML

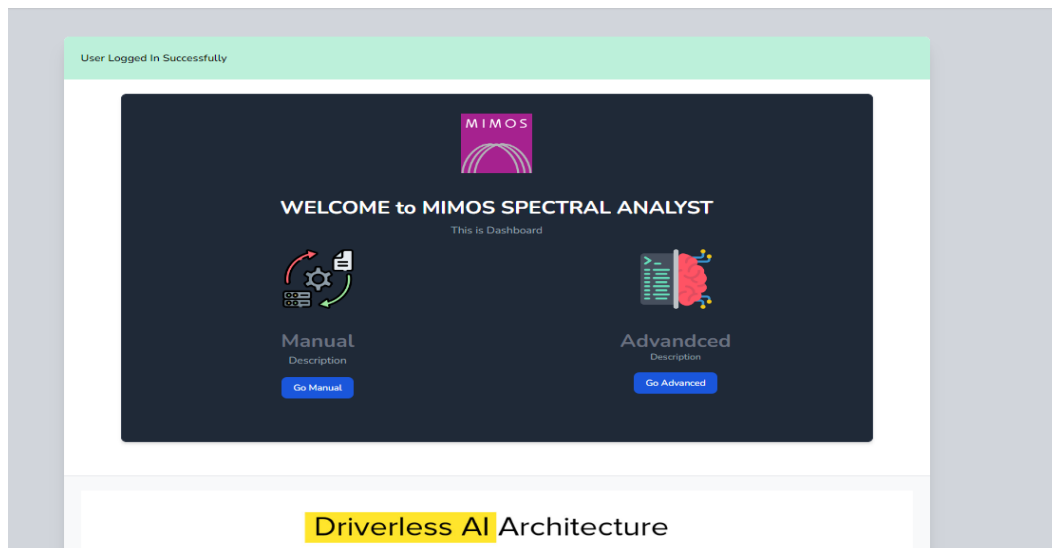
1. Landing Page and Login



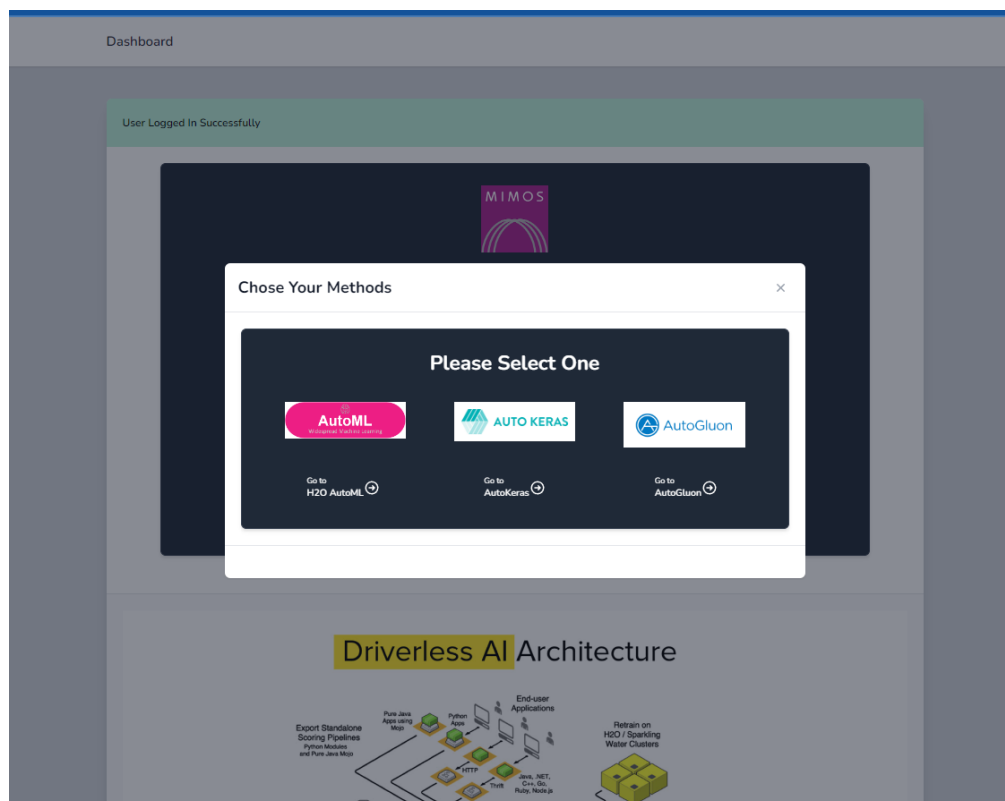
2 ways to access this page, if using command php artisan serve, then access url localhost:8000. if using laragon as server host, we can access in url spectral_mimos.test. we must got username (email) and password from mimos, before login to system. by default we just using "root@ains.com" as username, and "password" for password. this data will direct to mimos server to check data, if success, will show page Dashboard if wrong, will show notify *"Email & Password does not match with our record."*

2. Dashboard Page

Dashboard



If your data login success, sistem show Dashboard page, in dashboard page have two option, Go manual and go Advandced. In Goto Manual Option, have 3 AutoML Option; H2O,AutoKeras and AutoGluon.



3 type of AutoML in this System, AutoML H2O, Auto Keras and Auto Gluon

A. H2O AutoML

1. Input Data Page.

a. Project List

Input Data

Project ID | Name

Select Project ID

Select Project ID

15 | Port Leo

16 | UTM Project 1

17 | itex-23

18 | Reva-Lablink

Title

Enter Title

SAVE

TITLE	DESCRIPTION
p_15b_43_project_1	title:project_1, Project ID :15, Batch ID :43

When you are in page “input data”, the system automated retrieve data from mimos API after communication portal between mimos server with token identification. Portal got token after successfully login. in this page, displayed two dropdown list, 1. Project list (as parent) and Batch List (as child).

b. Batch Data

Input Data

Project ID | Name

18

Batches

66 | 10 May

66 | 10 May

68 | 11 May

Project1.csv

SAVE

TITLE	DESCRIPTION
p_15b_43_project_1	title:project_1, Project ID :15, Batch ID :43

After selected Project ID,system shown Batch data (ID and Name) then type project name to save to local database as .csv file. once you select Project ID,Batch ID and file name then submit to server, portal send data to mimos server then Download data by data submit.

2. Preprocessing Page

Preprocessing

Project Name

p_15b_43_project_1

File Name

p15_b43_project_1.csv

Train Ratio

Train Ratio

Validation Ratio

Validation Ratio

Test Ratio

Test Ratio

Pre Process

SAVGOL

☐ Savgol

☐ Savgol Order 0

☐ Savgol Order 1

☐ Savgol Order 2

LSNV

☐ Lsnv

☐ LSNV Windows 3

☐ LSNV Windows 4

☐ LSNV Windows 7

EMSC

☐ EMSC

DERIVATE

☐ Derivate

☐ Derivate Order 1

☐ Derivate Order 2

SNV

☐ SNV

DETREND

☐ Detrend BP 0

SMOOTH

☐ Smooth win 2

☐ Smooth Win 3

☐ Smooth Win 4

☐ Select ALL

RNV

☐ RNV 75 25

☐ RNV 90 10

MSC

☐ MSC

POST

in Preprocessing page displayed data filename and project name saved in local data after downloaded by page input data. Automatically, file name and project name renamed by portal combination project ID,Batch ID and title by your typed. field Train Ratio,Validation and Test Ratio totally must 1. if under or above, system displayed alert. And check box data for model your choice to processing data. Data on this form submit to python engine http://127.0.0.1:5052/trigger_process.

3. Training Page

MIMOS

Dashboard

Input Data

Preprocessing

Training

Output

Upload

Evaluate

Profile

Logout

Training

Project Name

p_15b_43_project_1

Max Runtime (second)

Max Runtime (second)

Type

Classification

POST

Process / Status

Project Name	Classification	Regression
a_try	100 % <div>Done</div>	100% <div>Done</div>
automl_pro_1	100 % <div>Done</div>	100% <div>Done</div>
automl_pro_2	100 % <div>Done</div>	100% <div>Done</div>
automl_pro_3	100 % <div>Done</div>	100% <div>Done</div>
automl_pro_4	100 % <div>Done</div>	100% <div>Done</div>
automl_pro_5	100 % <div>Done</div>	100% <div>Done</div>
automl_pro_6_all	100 % <div>Done</div>	100% <div>Done</div>
automl_pro_7	100 % <div>Done</div>	-
automl_pro_8	100 % <div>Done</div>	-
automl_pro_9	100 % <div>Done</div>	100% <div>Done</div>
new_mimos	100 % <div>Done</div>	100% <div>Done</div>
new_mimos1	100 % <div>Done</div>	100% <div>Done</div>

Refresh

this page to submit data to training machine by project name data and type (classification or regression) . if data successfully processed, output data displayed in the right side. for detail data just click in “done” button.

Detail Project

MIMOS

Dashboard

Input Data

Preprocessing

Training

Output

Upload

Evaluate

Profile

Logout

Training

Project Name

p_16b_49_test_2

Max Runtime (second)

Max Runtime (second)

Type

Classification

POST

Process / Status

automl_pro_2 --> regression

msc


msc-XGBoost_grid_1_AutoML_42_20221209_191235_model_77

Do you Want to Delete?

Yes

No

this is sample page for detail output project type regression



Dashboard
Input Data
Preprocessing
Training
Output
Upload
Evaluate
Profile

Logout

Training

Project Name
p_16b_49_test_2

Max Runtime (second)
Max Runtime (second)

Type
Classification

POST


Process / Status

automl_pro_3 --> classification
mssc
savgol_order_0
savgol_order_0-GBM_4_AutoML_28_20221208_172649

Do you Want to Delete?
Yes No

this is sample page for detail project type classification

4. Output



Dashboard
Input Data
Preprocessing
Training
Output
Upload
Evaluate
Profile


Logout

Output

Output
Download Binary Files


PROJECT NAME	LINKS
p_16b_49_test_2	Regression Classification
p_1b_1_test_1	Regression Classification
p_1b_1_test_9	Regression Classification
p_20b_50_test_8	Regression Classification
p_20b_50_test_7	Regression Classification
p_20b_50_Save1	Regression Classification
p_20b_50_test_2	Regression Classification
p_20b_50_test_6	Regression Classification
p_20b_50_test_5	Regression Classification
p_20b_50_test_4	Regression Classification
p_20b_50_test_2	Regression Classification
p_20b_50_test_3	Regression Classification

How AutoML works



This is output list, for show detail you must choice Regression or Classification

Output for detail regression

 Dashboard Input Data Preprocessing Training Output Upload Evaluate Profile Logout

Output

Output > p_20b_50_test_7 > regression

Select Classification

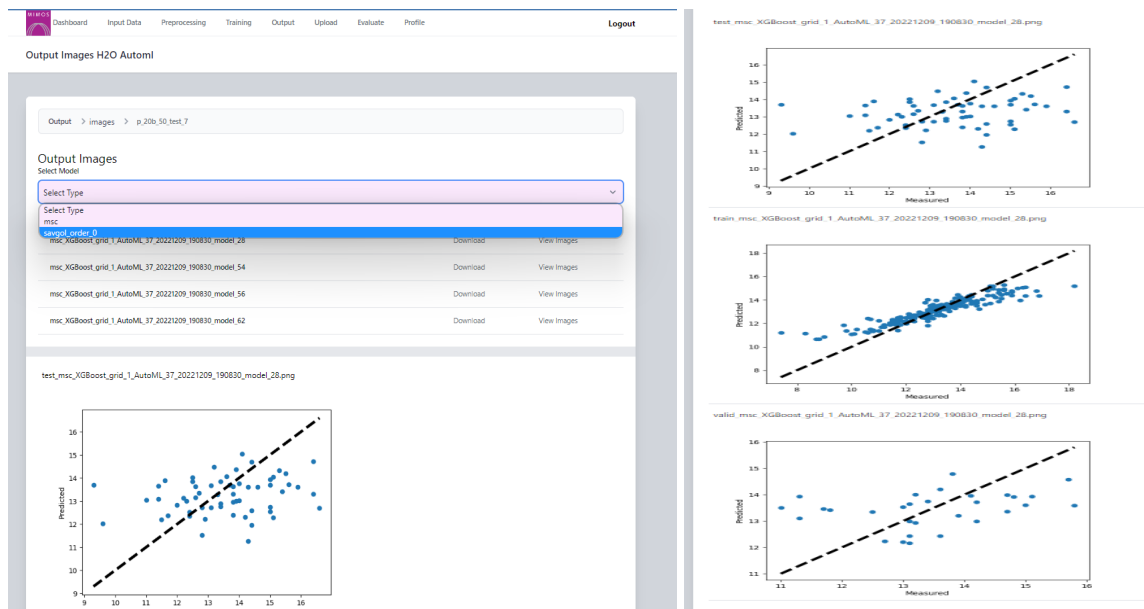
Select Type

CLASS REGRESSION4 FILES

msc_XGBoost_grid_1_AutoML_37_20221209_190830_model_28	Download	View Images
msc_XGBoost_grid_1_AutoML_37_20221209_190830_model_54	Download	View Images
msc_XGBoost_grid_1_AutoML_37_20221209_190830_model_56	Download	View Images
msc_XGBoost_grid_1_AutoML_37_20221209_190830_model_62	Download	View Images

This is sample page for output data regression, user can voice Download to save data or view image to show image.

View Images



This is List data of images in output and type regression

Output for detail Classification

MIMOS

DashboardInput DataPreprocessingTrainingOutputUploadEvaluateProfile

Logout

Output

Output > p_20b_50_test_7 > classification

Select Classification

Select Type

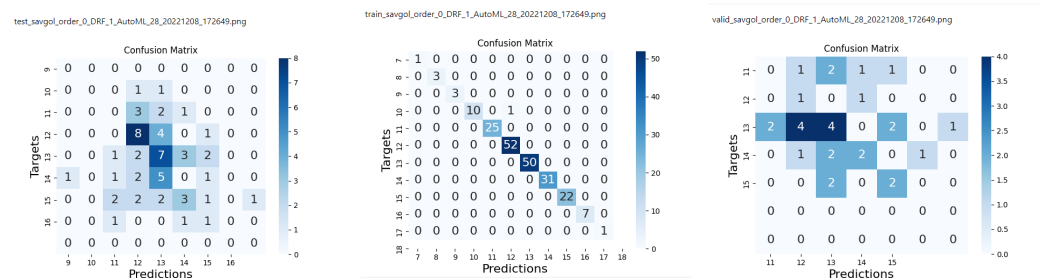
CLASS CLASSIFICATION

8 FILES

savgol_order_0_DRF_1_AutoML_28_20221208_172649	Download	View Images
savgol_order_0_DRF_1_AutoML_30_20221208_173240	Download	View Images
savgol_order_0_GBM_3_AutoML_30_20221208_173240	Download	View Images
savgol_order_0_GBM_4_AutoML_28_20221208_172649	Download	View Images
savgol_order_0_GBM_4_AutoML_30_20221208_173240	Download	View Images
savgol_order_0_GBM_5_AutoML_30_20221208_173240	Download	View Images
savgol_order_0_GBM_grid_1_AutoML_28_20221208_172649_model_1	Download	View Images
savgol_order_0_XGBoost_1_AutoML_28_20221208_172649	Download	View Images

This is Sample data of output in classification type

Show Image Classification type



3 Samples of output image with type classification

5. Upload Page

The screenshot shows the 'Upload Page' of the MIMOS application. The top navigation bar includes 'Dashboard', 'Input Data', 'Preprocessing', 'Training', 'Output', 'Upload', 'Evaluate', 'Profile', and a 'Logout' button. The page title is 'Upload Page'. Below the title, there are two main sections: 'Upload File' and 'Upload Model'. Both sections have a 'Project ID | Name' dropdown menu with '18' selected. The 'Upload File' section has a 'Batches' dropdown menu with 'Select Project ID to get Batch ID' selected, and a list of batches: '66 | 10 May' (highlighted), '68 | 11 May', and 'select file'. There is an 'UPLOAD' button below the batches. The 'Upload Model' section has an 'Upload Model' dropdown menu with 'select file' selected, and an 'UPLOAD' button below it.

this is Upload Page, to upload data has processed to mimos server,
Upload file and Upload Model.

6. Evaluate / Prediction Page

The screenshot shows the 'Evaluate Page' of the MIMOS application. The top navigation bar includes 'Dashboard', 'Input Data', 'Preprocessing', 'Training', 'Output', 'Upload', 'Evaluate', 'Profile', and a 'Logout' button. The page title is 'Evaluate Page'. Below the title, there is a 'Download Data' section. This section has a 'Project ID | Name' dropdown menu with 'Select Project ID' selected. Below this is a 'Batches' section with an 'Enter Batches ID' input field. Below that is a 'Title' section with an 'Enter Title' input field. At the bottom, there is a 'Select Project Name' dropdown menu with 'Select Project Name' selected, and an 'Input Row' section with a 'Message' input field. There is a 'POST' button below the input fields.

if project not displayed in list, user can download it.



Evaluate Page

Select Project Name

p_20b_50_test_7



Select Filter

classification



Select Model Type

savgol_order_0



Select Model File

savgol_order_0_DRF_1_AutoML_28_20221208_172649



Select Summary Status

Enable



Upload file

Select Filename



Input Row

From Row

input Row

☐ Multiple

POST

This is Page for Submit data to prediction / Evaluate