



Create a project

Start with a new, blank project or select from where to import an existing project.

+ New

 Local file

 Sample

Name

PMGSY_Categorizer

Description (optional)

Automating the categorization of road and bridge construction projects under various PMGSY schemes using data-driven classification techniques.

Tags (optional)

Add tags

Add tags to make projects easier to find. To add tags, separate them with commas and press Enter.

Storage

Cloud Object Storage-fj

Project includes integration with [Cloud Object Storage](#) for storing project assets.

Cancel

Create

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Projects / PMGSY_Categorizer

Associate service

Choose an existing or add a new service to associate with your project.

1 x Default

2 x Locations

Find services

New service +

Name	Type	Plan	Location	Status	Group
<input checked="" type="checkbox"/> watsonx.ai Runtime-uk ⓘ	watsonx.ai Runtime	Lite	London	Not associated	Default

Cancel

Associate

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Projects / PMGSY_Categorizer

Overview

Assets

Jobs

Manage

Start working

Recommended

Add users as collaborators

→

Add data to work with

→

Work with data and models in Python or R notebooks

→

Build machine learning models automatically

→

View all

Collapse

Assets

By all

Assets that you create with tools show here. See all assets, including data assets, on the Assets page.

View all

Resource usage

For this month in this project

0 CUH

Your documentation

New!

Get started with your documentation

You can create and manage documents about work that you do in this project.

Open Documentation editor

Project history

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Over

Sta

+ New

Sample

View

Asse

Asse here, asset

View

Build machine learning models automatically

Define the details to create an AutoAI experiment asset and open it in the AutoAI tool.

Define details

Name

Scheme_Prediction

Description (optional)

What's the purpose of this AutoAI experiment?

Tags (optional)

Add tags to make assets easier to find.

Start typing to add tags

Define configuration

watsonx.ai Runtime service instance

watsonx.ai Runtime-uk

Environment definition

Large: 8 CPU and 32 GB RAM

This environment definition consumes 20 capacity units per hour for training. For details, see [watsonx.ai Runtime plans](#).

Cancel

Back

Create

Configure AutoAI experiment

Scheme_Prediction

Autosaved: 12:23:13 PM

Add data source

Add files such as tabular data (CSV).

Browse

Select from project

PMGSY_DATASET.csv

Size: 170.49 KB | Columns: 15

Configure details

Create a time series analysis?

Enable this option to predict future activity over a specified date/time range. Data must be structured and sequential. [Learn more](#)

Yes

No

Projects / PMGSY_Categorizer / Scheme_Prediction

Configure AutoAI experiment

Scheme_Prediction

Autosaved: 12:23:13 PM

Add data source

Add files such as [tabular data \(CSV\)](#).

Browse

Select from project



PMGSY_DATASET.csv

Size: 170.49 KB

Columns: 15



Configure details

Enable this option to predict future activity over a specified date/time range. Data must be structured and sequential. [Learn more](#)

Yes

No



What do you want to predict?

Prediction column 

PMGSY_SCHEME



Prediction column: PMGSY_SCHEME

CUH remaining: 17.96 CUH

PREDICTION TYPE

Multiclass Classification

OPTIMIZED FOR

Accuracy & run time

Experiment settings 

Run experiment



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👤

Experiment summary

Pipeline comparison

★ Rank by: Accuracy (Optimized) | Cross validation score 🔗

Progress map ⓘ

Prediction column: PMGSY_SCHEME

Read dataset

Split holdout data

Read training data

Preprocessing

Model selection

Relationship map

Swap view ↔

90% TRAINING DATA 8 fold

10% HOLDOUT DATA

Splitting data

PMGSY_DATASET.CSV

Splitting holdout and training data

Time elapsed: 55 seconds

View log

Save code

Pipeline leaderboard 🔍

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Projects / PMGSY_Categorizer / Scheme_Prediction

Rank by: Accuracy (Optimized) | Cross validation score

Experiment summary

Pipeline comparison

Relationship map ⓘ

Prediction column: PMGSY_SCHEME

90% TRAINING DATA 3 folds

PMGSY_DATASET.csv

10% HOLDOUT DATA

Progress map

Swap view ↔

Preprocessing

PMGSY_DATASET.CSV

Setting default preprocessor parameters

Time elapsed: 78 seconds

View log

Save code

Pipeline leaderboard ⓘ

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Projects / PMGSY_Categorizer / Scheme_Prediction

Experiment summary

Pipeline comparison

★ Rank by: Accuracy (Optimized) | Cross validation score

Progress map ⓘ

Prediction column: PMGSY_SCHEME

Read dataset

Split holdout data

Read training data

Preprocessing

Model selection

Snap Random Forest Classifier

P1

Hyperparameter optimization

P2

Feature engineering

P3

Hyperparameter optimization

P4

XGB Classifier

P5

Hyperparameter optimization

P6

Hyperparameter optimization

P7

Feature engineering

P8

Hyperparameter optimization

P9

Ensemble creation

Relationship map

Swap view ↔

Evaluating pipeline

XGB CLASSIFIER

Testing holdout data and ranking pipeline based on optimized metric.

Time elapsed: 2 minutes

View log

Save code

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Projects / PMGSY_Categorizer / Scheme_Prediction

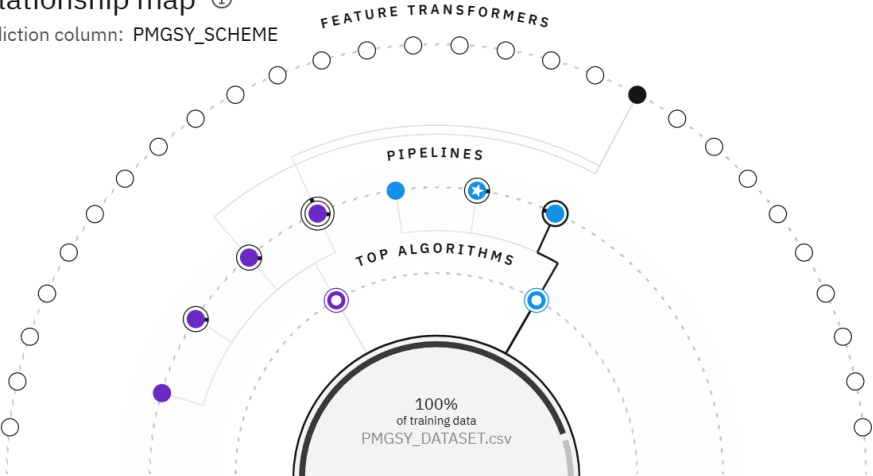
Experiment summary

Pipeline comparison

★ Rank by: Accuracy (Optimized) | Cross validation score


Relationship map ⓘ

Prediction column: PMGSY_SCHEME



Progress map

Swap view ↔



Hyperparameter optimization

XGB CLASSIFIER

Starting hyperparameter optimization for pipeline P7

Time elapsed: 2 minutes

View log

Save code

Pipeline leaderboard ▾

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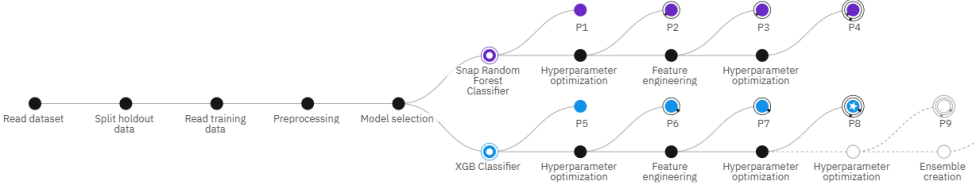
Experiment summary

Pipeline comparison

★ Rank by: Accuracy (Optimized) | Cross validation score

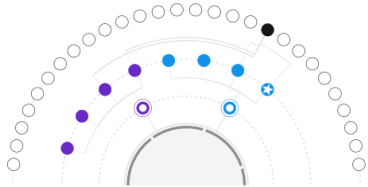
Progress map ⓘ

Prediction column: PMGSY_SCHEME



Relationship map

Swap view ⇄



Experiment completed ✓

8 PIPELINES GENERATED

8 pipelines generated from algorithms. See pipeline leaderboard below for more detail.

Time elapsed: 4 minutes

View log

Save code

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Projects / PMGSY_Categorizer / Scheme_Prediction

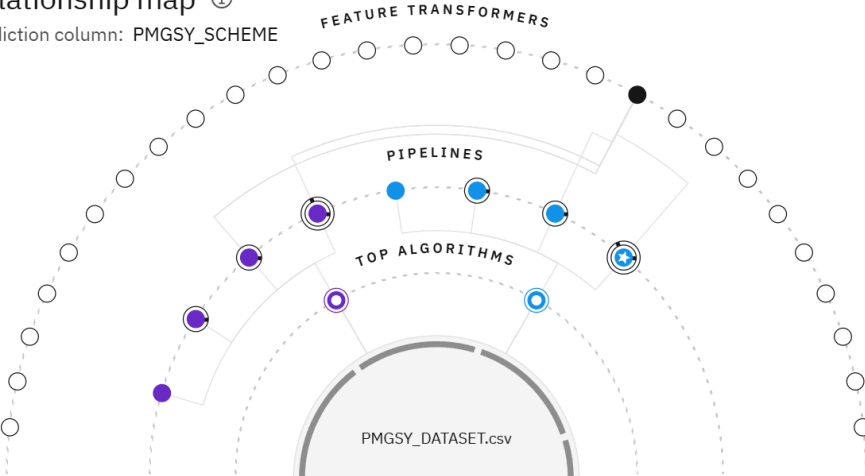
Rank by: Accuracy (Optimized) | Cross validation score

Experiment summary

Pipeline comparison


Relationship map ⓘ

Prediction column: PMGSY_SCHEME



Progress map

Swap view ↔



Experiment completed ✓

8 PIPELINES GENERATED

8 pipelines generated from algorithms. See pipeline leaderboard below for more detail.

Time elapsed: 4 minutes

View log

Save code

Pipeline leaderboard ▾

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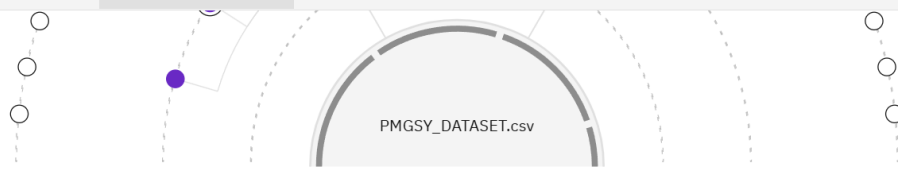
AN

Projects / PMGSY_Categorizer / Scheme_Prediction

Experiment summary

Pipeline comparison

★ Rank by: Accuracy (Optimized) | Cross validation score



PMGSY_DATASET.csv

Time elapsed: 4 minutes

[View log](#)

[Save code](#)

Pipeline leaderboard

	Rank ↑	Name	Algorithm	Specialization	Accuracy (Optimized) Cross Validation	Enhancements	Build time
★	1	Pipeline 8	XGB Classifier		0.924	HPO-1 FE HPO-2	00:01:57
	2	Pipeline 7	XGB Classifier		0.924	HPO-1 FE	00:01:11
	3	Pipeline 6	XGB Classifier		0.918	HPO-1	00:00:24
	4	Pipeline 5	XGB Classifier		0.918	None	00:00:03

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Save as

Select asset type

Model

Create a watsonx.ai Runtime model asset that you can test with new data, deploy to generate predictions, and trace lineage activity.

Notebook

Create a notebook if you want to view the code that created this model pipeline or interact with with the model programatically.

Define details

Name

P8 - XGB Classifier: Scheme_Prediction

Description (optional)

Model description

Tags

Add tags to make assets easier to find.

Add a tag

Cancel

Create

Input (1)

Column	↑	Type
COLUMN15		double
COST_OF_WORKS_SANCTIONED		double
DISTRICT_NAME		other
EXPENDITURE_OCCURED		double
LENGTH_OF_ROAD_WORK_BALANCE		double
LENGTH_OF_ROAD_WORK_COMPLETED		double
LENGTH_OF_ROAD_WORK_SANCTIONED		double
NO_OF_BRIDGES_BALANCE		double

About this asset

Name

P8 - XGB Classifier: Scheme_Prediction

Description

No description provided.

Asset Details

Type: wml-hybrid_0.1

Model ID: 7afc1ae5-4d9c-40...

Software specification: hybrid_0.1

Hybrid pipeline software specifications: autoai-kb_rt24.1-py3.11

Tags

Add tags to make assets easier to find.

Last modified

31 seconds ago by Amarjit Kumar Natraj

Created on

Jul 31, 2025 by Amarjit Kumar Natraj

Scheme_deploy

Overview

Assets

Deployments

Jobs

Manage

Find assets

Import assets

New asset +


1 asset

All assets 1

Asset types

Models 1

All assets

Name	Last modified	
 P8 - XGB Classifier: Scheme_Prediction Machine learning model from AutoAI	19 seconds ago Amarjit Kumar Natraj (You)	

Items per page: 20 ▾ 1-1 of 1 items 1 of 1 pages

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Deployment spaces / Scheme_deploy / P8 - XGB Classifier: Scheme_Prediction

Deployments

Model details

Search

New deployment

Name	Type	Status	Tags	Last modified	
<div><div></div>Scheme_deploy2</div>	Online	<div>Deployed</div>		28 seconds ago Amarjit Kumar Natraj (You)	

Items per page: 20

1-1 of 1 items

1 of 1 pages

About this asset

Name

P8 - XGB Classifier: Scheme_Prediction

Description

No description provided.

Asset Details

Type: wml-hybrid_0.1

Model ID: 8e66c0fa-4b59-4b...

Software specification: hybrid_0.1

Hybrid pipeline software specifications: autoai-kb_rt24.1-py3.11

Tags

Add tags to make assets easier to find.

Source asset details

Last modified
2 minutes ago by Amarjit Kumar Natraj

Created on
Jul 31, 2025 by Amarjit Kumar Natraj

Scheme_deploy2

Deployed

Online

API reference

Test

Enter input data

Text

JSON

Enter data manually or use a CSV file to populate the spreadsheet. Max file size is 50 MB.

Download CSV template

Browse local files

Search in space

Clear all

	STATE_NAME (other)	DISTRICT_NAME (other)	NO_OF_ROAD_WORK_SANCTIONED (double)	LENGTH_OF_ROAD_WORK_SANCTIONED (double)	NO_OF_BRIDGES_SANCTIONED (double)	COST_OF_WORKS_SANCTIONED (double)	NO_OF_R
1	Andhra Pradesh	Chittoor	283	889.681	6	188.3558	283
2	Andhra Pradesh	Kurnool	1	7.11	0	0	0
3	Andhra Pradesh	East Godavari	11	29.48	0		0
4	Jharkhand	Giridih	13	33	0	0	7
5	Jharkhand	Koderma	17	89	2	56	8
6	West Bengal	Kolkata	99	690	45	200	7
7	Maharashtra	Nagpur	45	270	25	160	40
8							
9							
10							

7 rows, 14 columns

Predict

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Prediction results

Prediction type

Multiclass classification

Prediction percentage

7 records

PMGSY-I

PMGSY-III

PM-JANMAN

PMGSY-II

Confidence level distribution

Number of records

0

5

0-20%

20-40%

40-60%

60-80%

80-100%

Confidence level

Display format for prediction results

Table view

JSON view

Show input data

	Prediction	Confidence
1	PMGSY-I	100%
2	PMGSY-III	99%
3	PM-JANMAN	100%
4	PMGSY-II	100%
5	PMGSY-III	48%
6	PMGSY-III	80%
7	PMGSY-III	93%
8		
9		
10		
11		
12		
13		
14		
15		
16		

Download JSON file