

FEDOT.Web: Beginners guide

This is the manual for the web demonstrator for the AutoML framework FEDOT (<https://github.com/nccr-itmo/FEDOT>).

It is the open-source product available in <https://github.com/nccr-itmo/FEDOT.Web>.

The online version can be accessed in <https://fedot.onti.actcognitive.org/>

Press “Sign In as guest” or use your login/password
(can be obtained from nnnikin@itmo.ru)

Sign In

Login *

guest

Password *



.....

Sign In

Sign In as guest

Click to sing is using guest
account

Choose the case of analysis.




Case



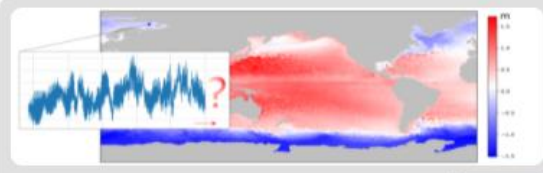
Credit scoring case

Expand



Oil production prediction

Expand



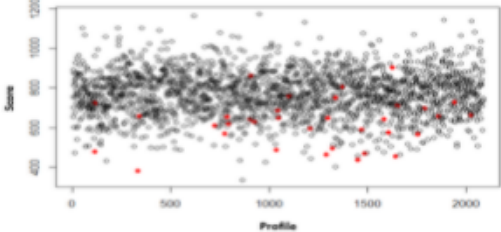
Metoccean forecasting case

Expand

Expand the selected case study

Analyze the details of the models. Go to sandbox.

Model structure



Client	Probability of non repayment
Mike	0.78
Jack	0.45
Larry	0.13
Kate	0.06
William	0.03
Jessica	0.02

Denial
 $p^*=0.15$
Approval

Model details

n_models	2
n_levels	2
n_features	10
n_rows	5464
ROCAUC	0.839

The purpose of credit scoring is to assess and possibly reduce the risk of a bank associated with lending clients. Risk minimization happens due to dividing potential borrowers into creditworthy and non-creditworthy borrowers. Behavioural scoring involves an assessment of creditworthiness based on information about the borrower, characterizing his behaviour and habits and obtained from various sources.

Edit in Sandbox

Analyse details of the pipeline and its evolution in the sandbox

Evaluate

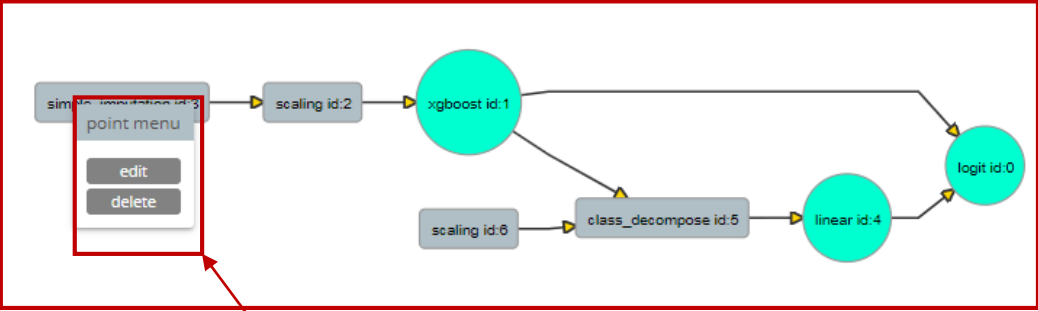
Validate the modified pipeline and fit it

+ add Point

edit Point

Name	class_decompose
Parents ids	1,6
Childrens ids	4
Type	data_operatic

Cancel Submit



Best pipeline in the generation.

Edit node of pipeline

Modal widows for node modification

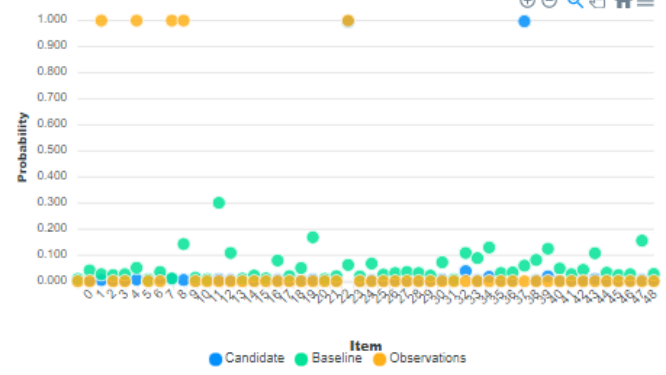


Select generation for analysis

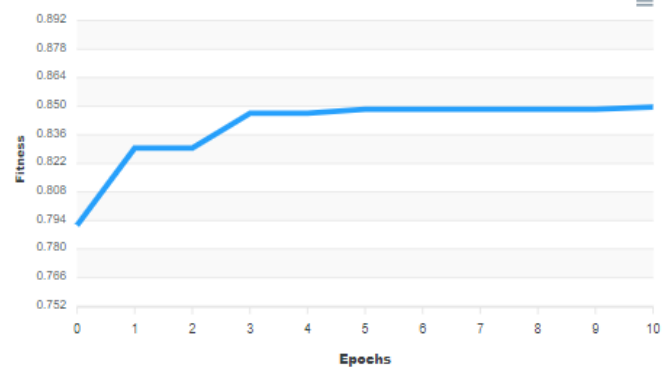
History

Go to composing history

Modeling Result

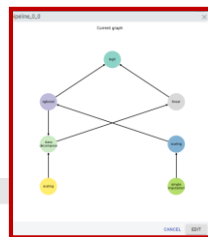


Metric



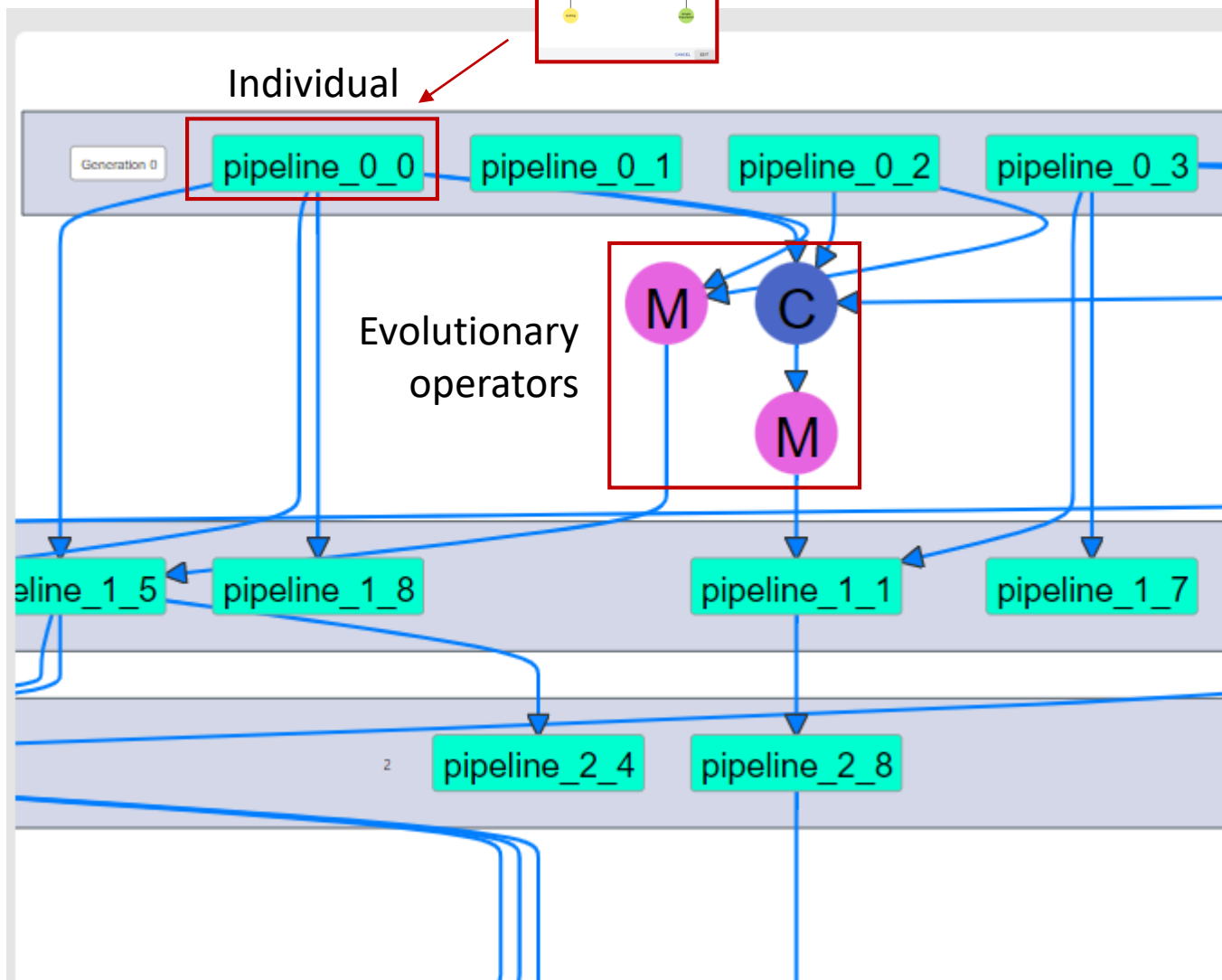
Invalid pipeline configuration: More than 1 root nodes in pipeline

Example of validation error



Structure of pipeline

Switch between fitness and complexity



Convergence of the fitness function during evolution

To participate in the FEDOT.Web development, you can:

1. Fork <https://github.com/nccr-itmo/FEDOT.Web> repository
2. Create new branch and add modifications
3. Create pull request with description of new features

Also, any feedback (issues, comments, stars) is welcome.

The screenshot displays the GitHub repository page for FEDOT.Web. At the top, it shows the repository name, branches (8), and tags (0). Below this is a table of files and folders, each with a commit message and a timestamp. The right sidebar contains the 'About' section, which describes the project as a 'Web tool for the AutoML', and a 'Languages' section showing the code's composition.

File/Folder	Commit Message	Timestamp
.github/workflows	Github action added (#13)	7 months ago
app	Observations added to results, frontend corrections (#68)	3 days ago
data	Observations added to results, frontend corrections (#68)	3 days ago
docs/img	Readme and frontend paths updated (#67)	4 days ago
frontend	Observations added to results, frontend corrections (#68)	3 days ago
init	Observations added to results, frontend corrections (#68)	3 days ago
scripts	Observations added to results, frontend corrections (#68)	3 days ago
test	Observations added to results, frontend corrections (#68)	3 days ago
.pep8speaks.yml	D3.js-compatible chain structure export implemented (#16)	6 months ago
README.md	Readme and frontend paths updated (#67)	4 days ago
init_db.py	added script for deploying mongo and script for starting with test_db (...)	last month
main.py	Readme and frontend paths updated (#67)	4 days ago
requirements.txt	Grid fs (#64)	14 days ago
utils.py	New tests for API added (#14)	7 months ago

About
Web tool for the AutoML

machine-learning gui
interactive-visualizations automl fedot

Readme

Contributors 5

Languages

- JavaScript 45.4%
- TypeScript 27.9%
- Python 21.8%
- SCSS 2.8%
- HTML 1.9%
- Shell 0.2%