

Implémentez un modèle de scoring

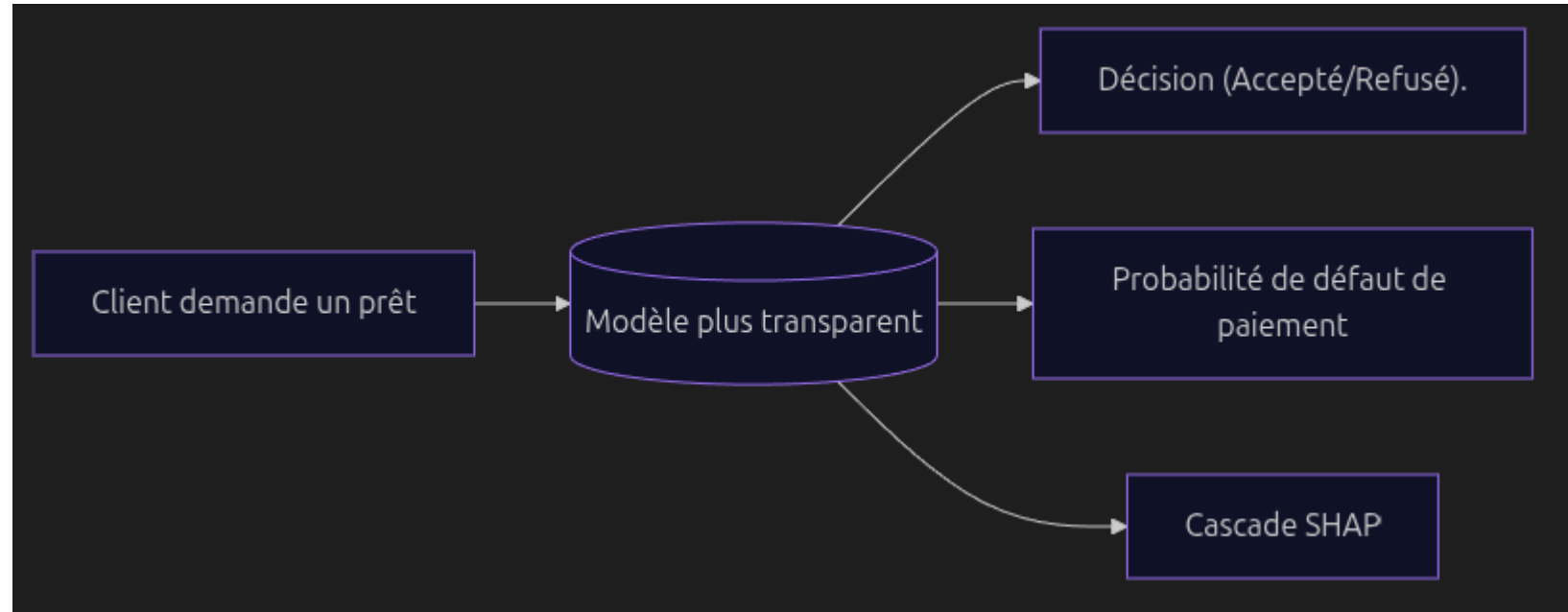
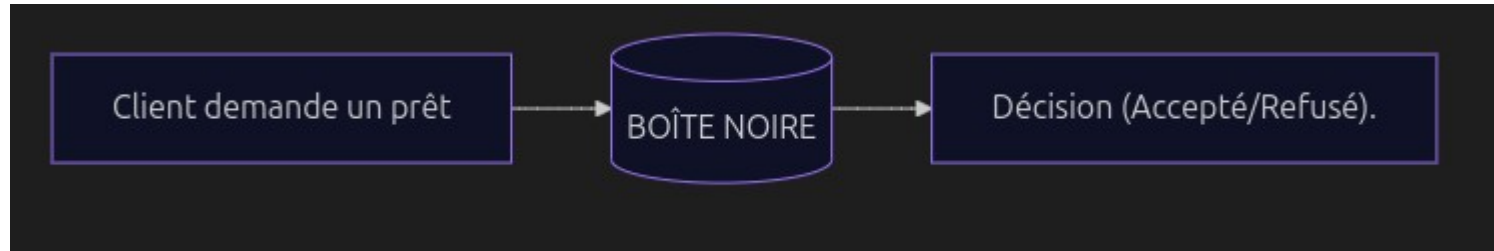


GHOUL Nadir

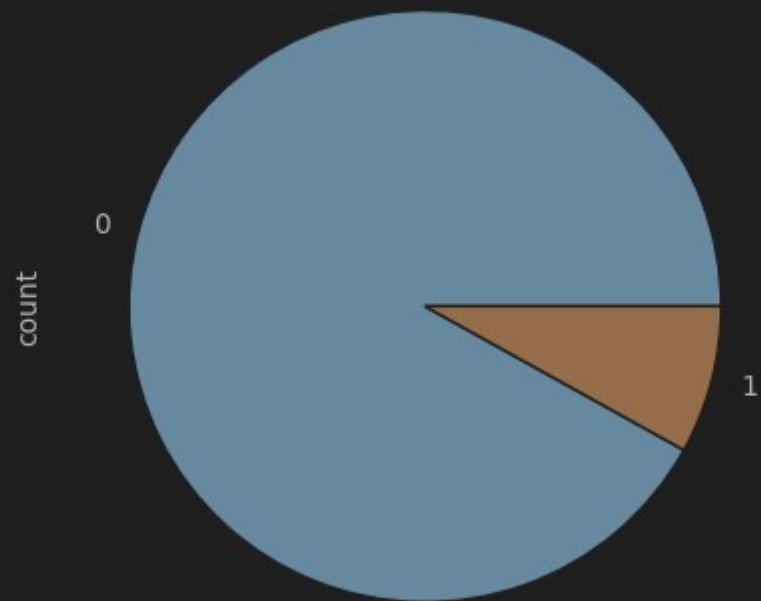
OpenClassrooms

Sommaire

- Contexte et Problématique Métier
- Démarche de Modélisation
- Suivi des Expériences avec MLflow
- Résultats et Interprétabilité du Modèle
- Pipeline de Déploiement Continu (CI/CD)
- Analyse du Data Drift
- Démonstration de l'API
- Conclusion et Perspectives



Répartition des cibles (0=paiement complet, 1=retards de paiement)



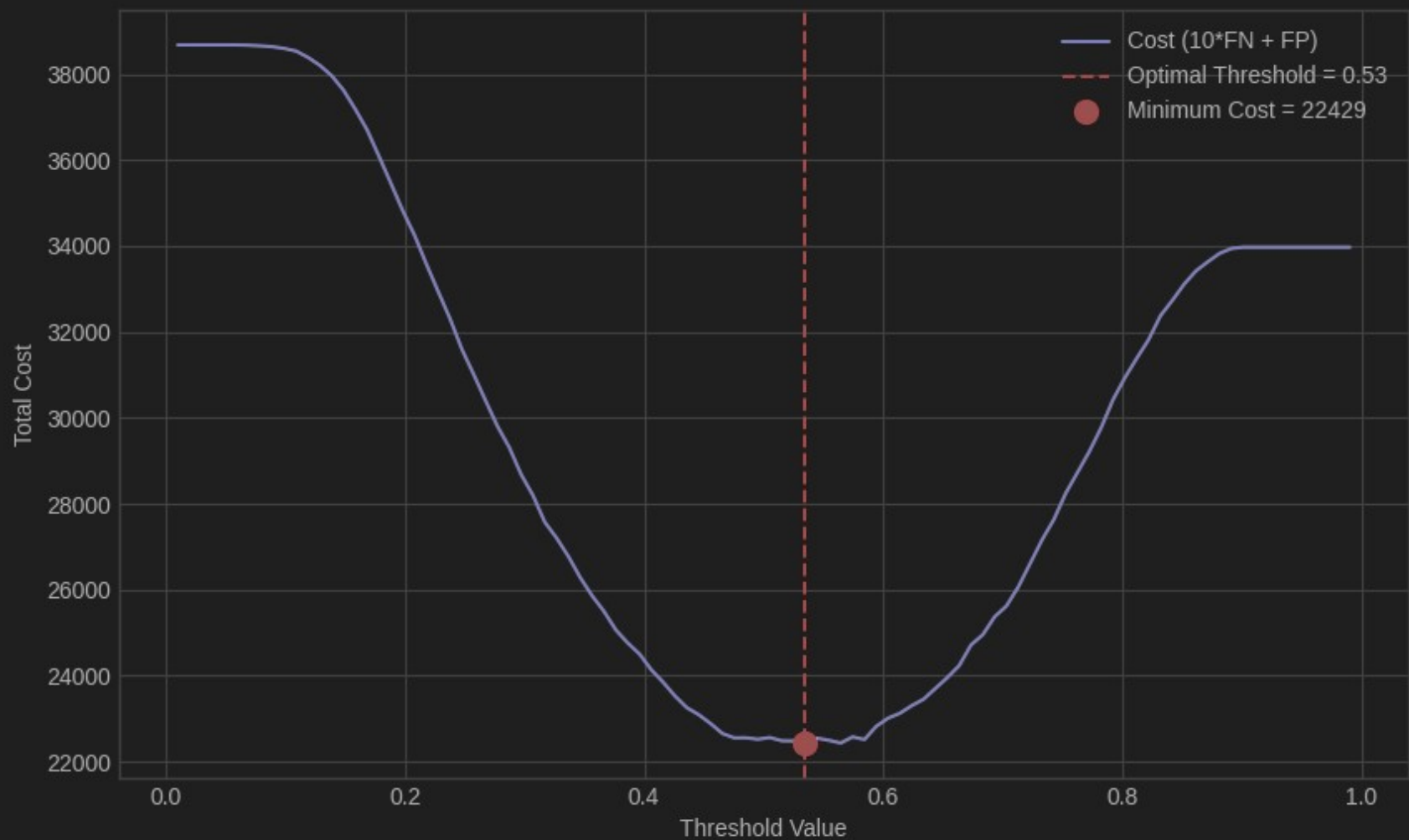
Déséquilibre dataset

- Déséquilibre dataset
 - Cause: 92% payent à temps
 - Symptôme: 92% accuracy pour autorisation systématique
 - Solutions:
 - Undersampling => Réduction de 84%
 - Oversampling => SMOTE => Grandissement de 48%
 - Nécessite une imputation des données
 - Données synthétiques
 - Class weighting => Aucun changement du dataset

Déséquilibre métier

- Déséquilibre métier
 - Cause: $\text{cost}(\text{FN}) \sim 10 * \text{cost}(\text{FP})$
 - Symptôme: 9 FN traités comme meilleur que 10 FP
 - Solution: Score métier
 - Coût total = $10 * \text{Faux Négatifs} + 1 * \text{Faux Positifs}$.

Cost vs. Classification Threshold



+ New

Experiments

Models

Prompts

P7_Credit_Scoring_Models >

LightGBMClassifier_champion

OverviewModel metricsSystem metricsTracesArtifacts

Description

No description

Details

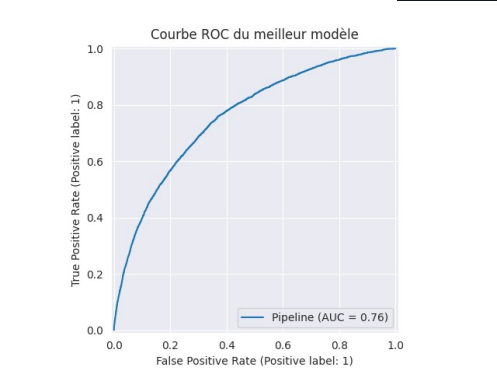
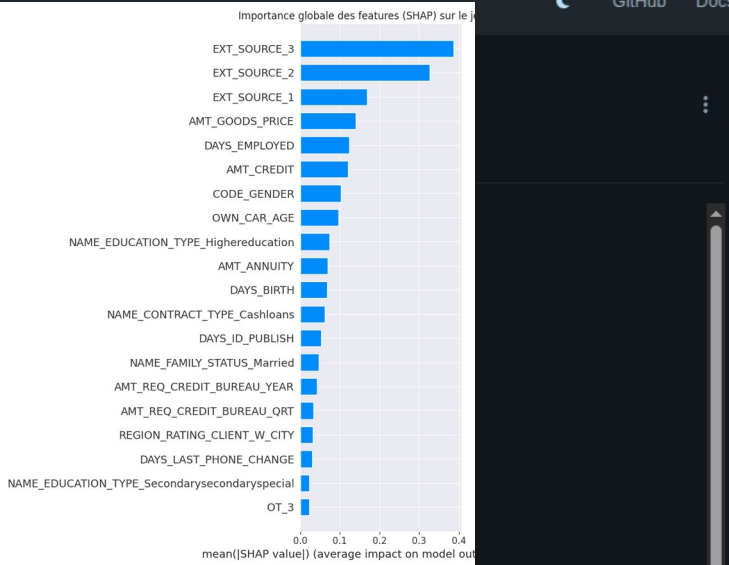
Created at	08/24/2025, 01:59:27 PM
Created by	nadir
Experiment ID	766270891001601525
Status	Finished
Run ID	80678cab0d24d39a31c2ec55a81c983
Duration	8.9s
Datasets used	—
Tags	model_status: champion
Source	ipykernel_launcher.py
Logged models	—
Registered models	LightGBMClassifier_champion_model v1
Registered prompts	—

Metrics (1)

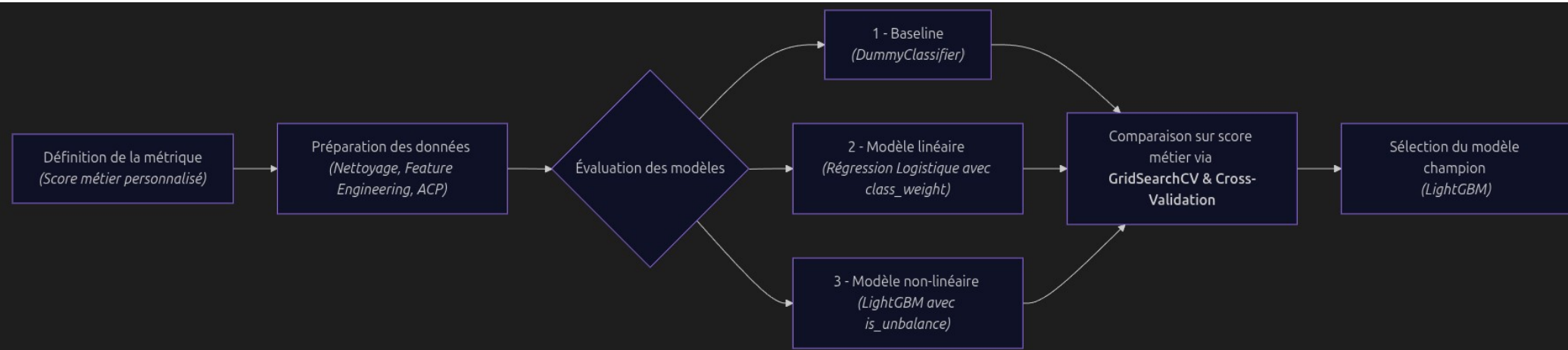
Search metrics	
Metric	Value

Parameters (3)

Search parameters	
Parameter	Value

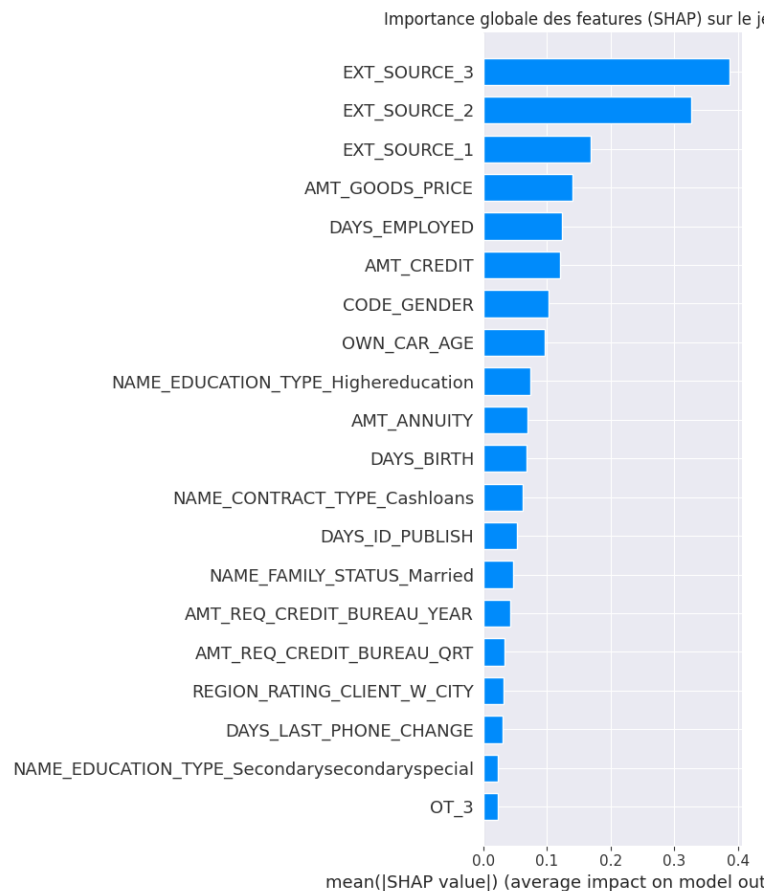


Stratégie de Modélisation et Optimisation

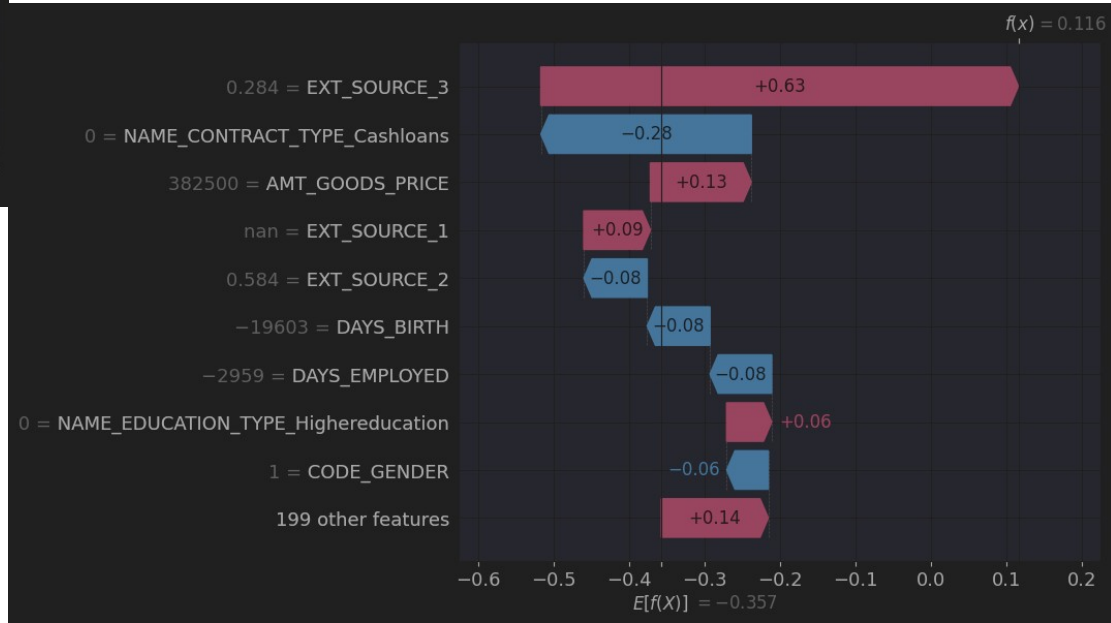
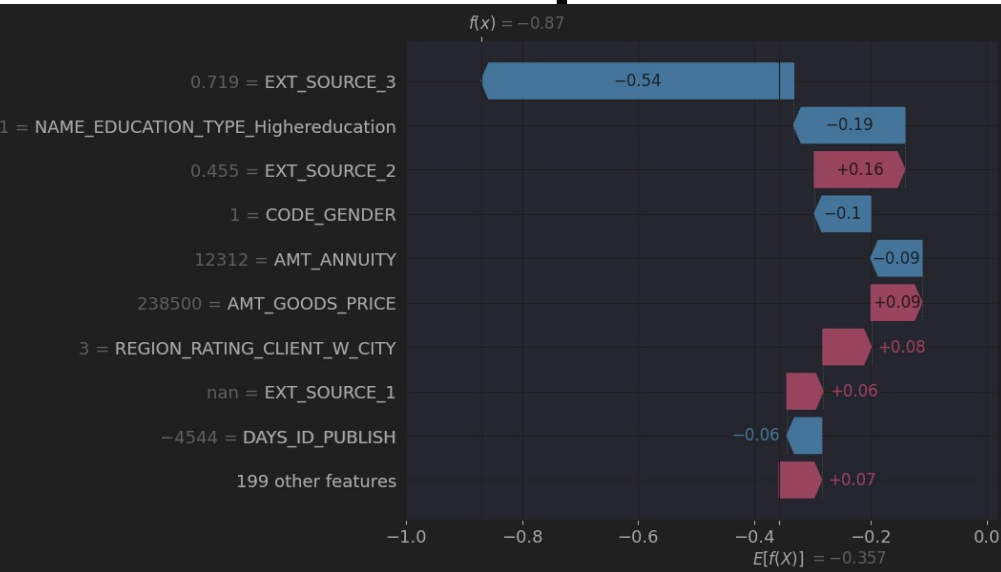


Résultats et Choix du Modèle Final

Interprétabilité Globale (Feature Importance)



Comparaison de deux clients



Dashboard

p7

Events

Settings

MONITOR

Logs

Metrics

MANAGE

Environment

Shell

Scaling

Previews

Disks

Jobs

Render MCP server

Manage your Render infrastructure directly from compatible AI apps.

[Learn more](#)

Changelog

Invite a friend

Contact support

Render Status

WEB SERVICE

p7

Python 3

Free

Upgrade your instance →

Connect

Manual Deploy

Service ID: srv-d2lmah7diees73c63kr0

gndu91 / p7 master

<https://p7-ijkx.onrender.com>

Your free instance will spin down with inactivity, which can delay requests by 50 seconds or more.

[Upgrade now](#)

August 24, 2025 at 11:05 PM Live

c24d384 Temporary patch

All logs

Search

Live tail

GMT+2

↕

...

```
Aug 24 11:12:01 PM [i] MODELE Pydantic - ClientData crée avec 121 champs.
Aug 24 11:12:01 PM [i] INFO: 127.0.0.1:42916 - "HEAD / HTTP/1.1" 405 Method Not Allowed
Aug 24 11:12:05 PM [i] ==> Your service is live 🎉
Aug 24 11:12:05 PM [i] ==>
Aug 24 11:12:06 PM [i] ==> //////////////////////////////////////
Aug 24 11:12:06 PM [i] ==>
Aug 24 11:12:06 PM [i] ==> Available at your primary URL https://p7-ijkx.onrender.com
Aug 24 11:12:06 PM [i] ==>
Aug 24 11:12:06 PM [i] ==> //////////////////////////////////////
Aug 24 11:12:08 PM [i] INFO: 35.230.45.39:0 - "GET / HTTP/1.1" 200 OK
Aug 24 11:17:06 PM [i] ==> Detected service running on port 10000
Aug 24 11:17:07 PM [i] ==> Docs on specifying a port: https://render.com/docs/web-services#port-binding
Aug 24 11:28:11 PM [i] INFO: Shutting down
Aug 24 11:28:11 PM [i] INFO: Waiting for application shutdown.
Aug 24 11:28:11 PM [i] INFO: Application shutdown complete.
Aug 24 11:28:11 PM [i] INFO: Finished server process [66]
```

Dataset Drift

Dataset Drift is NOT detected. Dataset drift detection threshold is 0.5

121
Columns

9 Drifted Columns

0.0744
Share of Drifted Columns

Data Drift Summary

Drift is detected for 7.438% of columns (9 out of 121).