

Menu:

Upload your CSV Files and Click on the Submit & Process Button

Drag and drop file here

Limit 200MB per file • CSV

Browse files



BPI_2013.csv

6.5MB



Submit & Process

Clear Page

ProM-Ex

Welcome!



Upload a CSV file, and I will detect and explain their anomalies.

Dataset Preview:

| | org:group | resource country | organization country | org:resource | organization involved | org:role | concept |
|---|-----------|------------------|----------------------|--------------|-----------------------|----------|---------|
| 0 | V30 | France | fr | Frederic | Org line A2 | A2_4 | Acces |
| 1 | V30 | France | fr | Frederic | Org line A2 | A2_4 | Acces |
| 2 | V5 3rd | France | fr | Frederic | Org line A2 | A2_5 | Que |
| 3 | V5 3rd | France | fr | Anne Claire | Org line A2 | A2_5 | Acces |
| 4 | V30 | France | fr | Anne Claire | Org line A2 | A2_4 | Que |

Select Case ID Column

org:group



Select Activity Column

concept:name



Menu:

Upload your CSV Files and Click on the Submit & Process Button

Drag and drop file here

Limit 200MB per file • CSV

Browse files



BPI_2013.csv

6.5MB



Submit & Process

Clear Page

| | | | | | | | |
|---|-----|--------|----|-------------|-------------|------|-----|
| 4 | V30 | France | fr | Anne Claire | Org line A2 | A2_4 | Que |
|---|-----|--------|----|-------------|-------------|------|-----|

Select Case ID Column

org:group



Select Activity Column

concept:name



Detected Anomalies:

| org:group | concept:name | | | | | | |
|-----------|--------------|----------|----------|-----------|-----------|----------|----------|
| D5 | Accepted | Accepted | Queued | Accepted | Accepted | Accepted | Queued |
| G230 2nd | Queued | Accepted | Accepted | Accepted | Accepted | Accepted | Queued |
| G76 | Accepted | Accepted | Accepted | Accepted | Accepted | Queued | Accepted |
| G96 | Accepted | Accepted | Accepted | Accepted | Accepted | Accepted | Accepted |
| G97 | Queued | Accepted | Queued | Accepted | Accepted | Accepted | Accepted |
| S42 | Accepted | Accepted | Accepted | Completed | Completed | Accepted | Acc |
| S56 | Queued | Accepted | Accepted | Queued | Accepted | Queued | Accepted |

SHAP Analysis

Feature Importance Plot

Menu:

Upload your CSV Files and Click on the Submit & Process Button

Drag and drop file here

Limit 200MB per file • CSV

Browse files



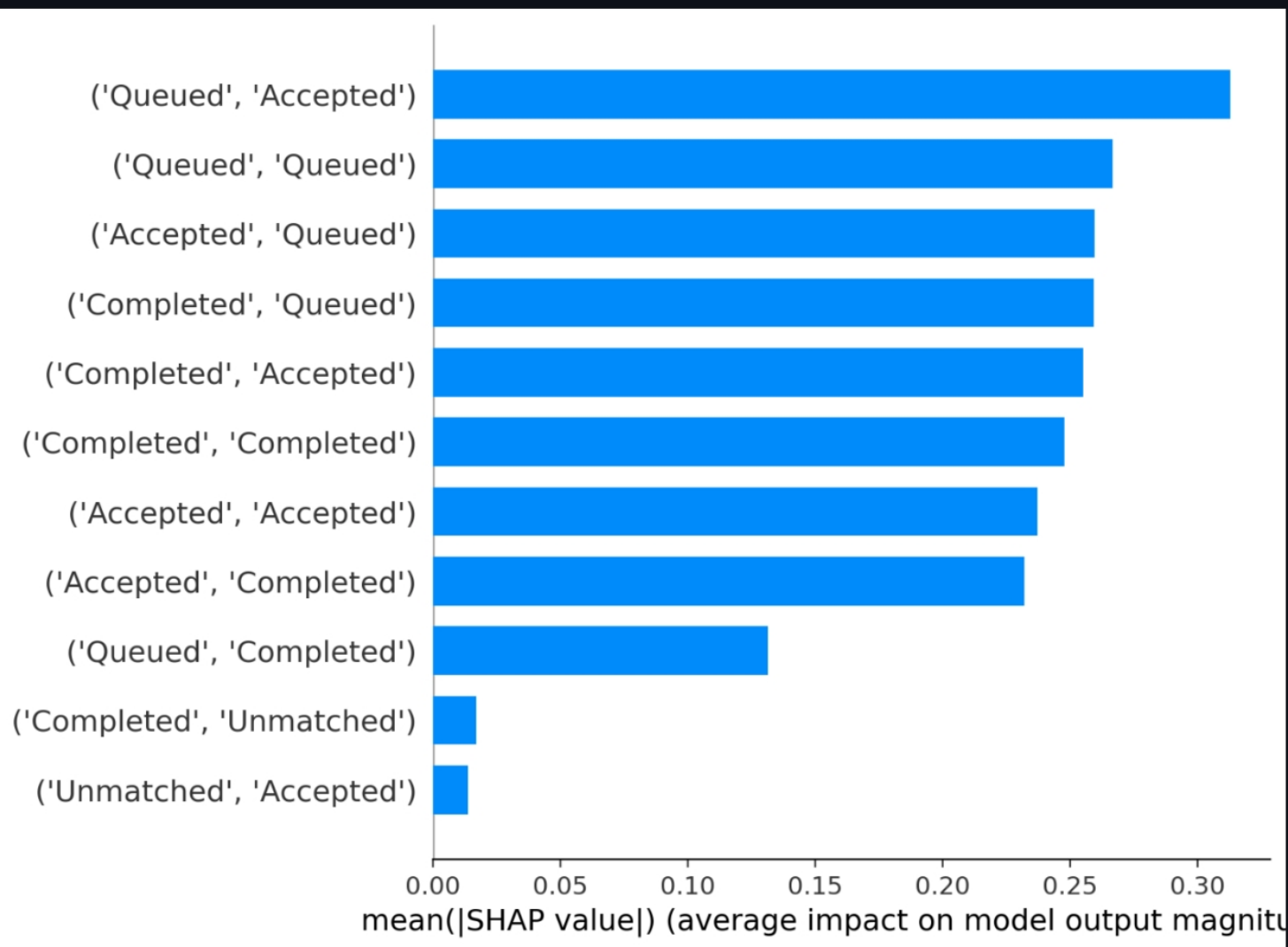
BPI_2013.csv

6.5MB



Submit & Process

Clear Page



LLM-based SHAP Explanation

Analysis of Control-Flow Anomalies

LLM-based SHAP Explanation

Analysis of Control-Flow Anomalies

1. Feature: ('Queued', 'Accepted')

- **Type of Anomaly:** Unexpected event order
- **Significance:** This feature indicates that an event ('Accepted') is occurring before the expected event ('Queued'). This anomaly suggests a deviation from the intended process flow, where tasks are being executed out of order.
- **Impact on Process Flow:** Such anomalies can lead to delays and errors, as tasks may not be completed in the correct sequence, potentially affecting downstream activities.

2. Feature: ('Queued', 'Queued')

- **Type of Anomaly:** Redundant events
- **Significance:** This feature highlights the occurrence of multiple 'Queued' events in a row. It suggests that a task is being queued multiple times, which is not typically expected in a well-defined process.
- **Impact on Process Flow:** Redundant events can cause inefficiencies and delays, as the process may be unnecessarily repeating tasks.

3. Feature: ('Accepted', 'Queued')

- **Type of Anomaly:** Missing events
- **Significance:** This feature indicates that the 'Queued' event is missing after the 'Accepted' event. It suggests that a task is being accepted but not queued, which could be a deviation from the expected process flow.

Menu:

Upload your CSV Files and Click on the Submit & Process Button

Drag and drop file here

Limit 200MB per file • CSV

Browse files



BPI_2013.csv

6.5MB



Submit & Process

Clear Page

Menu:

Upload your CSV Files and Click on the Submit & Process Button

Drag and drop file here

Limit 200MB per file • CSV

Browse files



BPI_2013.csv

6.5MB



Submit & Process

Clear Page

3. Feature: ('Accepted', 'Queued')

- **Type of Anomaly:** Missing events
- **Significance:** This feature indicates that the 'Queued' event is missing after the 'Accepted' event. It suggests that a task is being accepted but not queued, which could be a deviation from the expected process flow.
- **Impact on Process Flow:** Missing events can lead to errors and delays, as subsequent tasks may not be triggered or executed correctly.

4. Feature: ('Completed', 'Queued')

- **Type of Anomaly:** Looping patterns
- **Significance:** This feature indicates that a 'Queued' event is occurring after a 'Completed' event. It suggests that a task is being re-queued after completion, which is not typically expected in a linear process flow.
- **Impact on Process Flow:** Looping patterns can cause inefficiencies and delays, as tasks may be unnecessarily repeated or stuck in a loop.

5. Feature: ('Completed', 'Accepted')

- **Type of Anomaly:** Unexpected event order
- **Significance:** This feature indicates that the 'Accepted' event is occurring after the 'Completed' event. It suggests that a task is being accepted after it has already been completed, which is not typically expected in a well-defined process.
- **Impact on Process Flow:** Such anomalies can lead to errors and inefficiencies, as tasks may be unnecessarily repeated or executed out of order.