

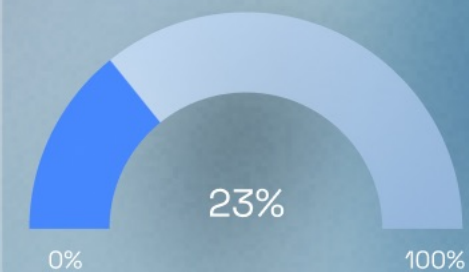
Supercharging ML Ops insights with customized Power BI Dashboard

Current cost
December 2024
10 742 \$

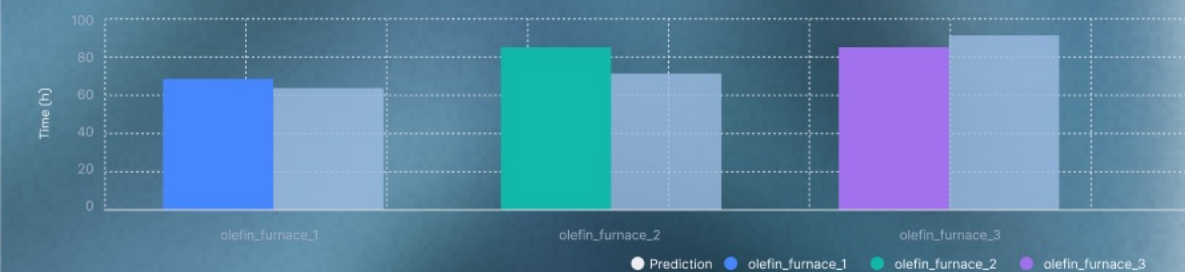
Total errors
December 2024
34 errors

Total requests
December 2024
7241

CPU usage
December 2024



Machine uptime prediction



Search



Period Monthly

Total errors
December 2024

4 errors

Total requests
December 2024

321

Technical overview [Details](#)

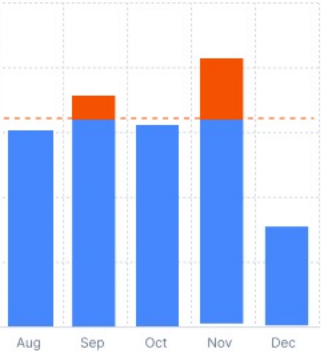
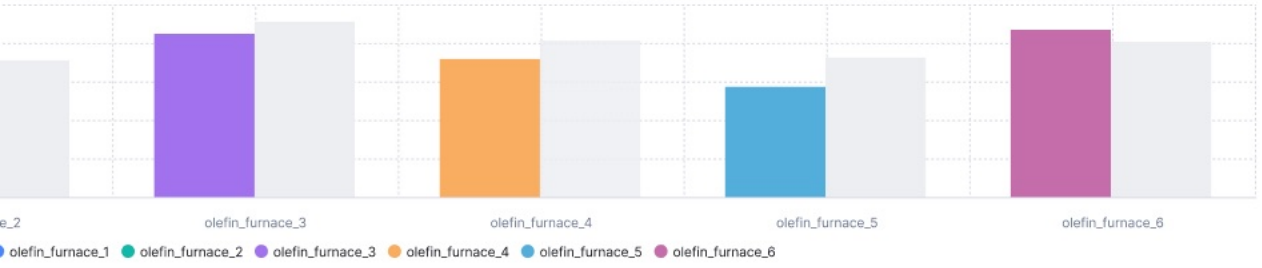
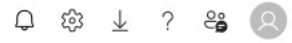


Chart Tabular



STXNEXT | Power BI

Search



ML Ops Dashboard > Resources

Period Monthly

Resources

Memory usage cost
December 2024

1 538 \$

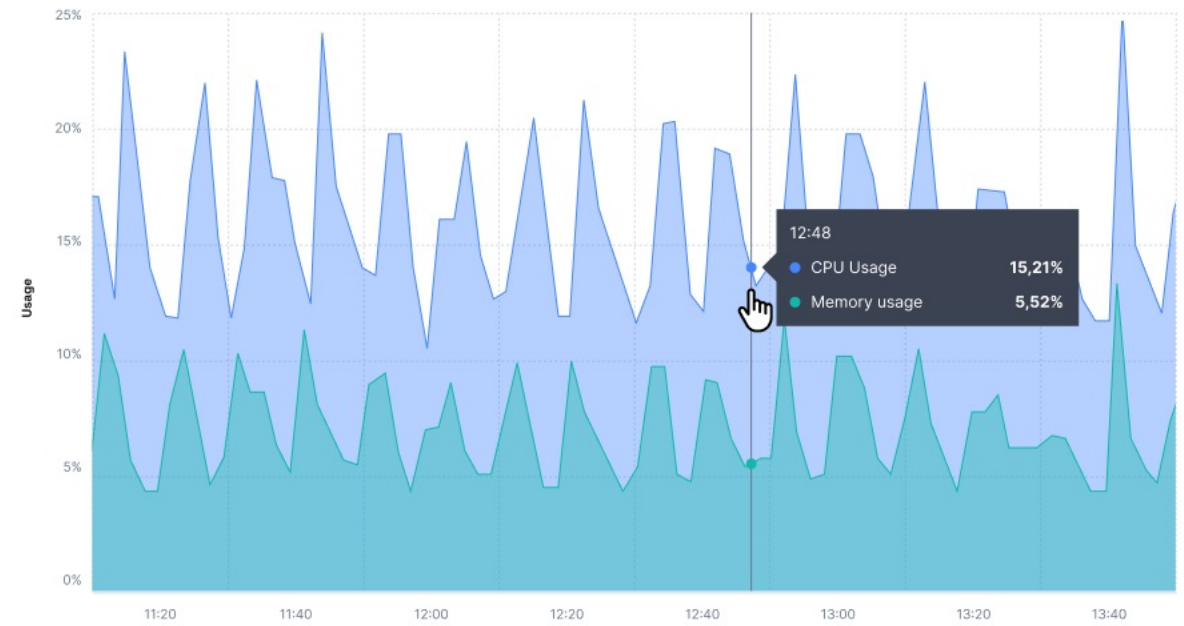
CPU usage cost
December 2024

204 \$

Total costs
December 2024

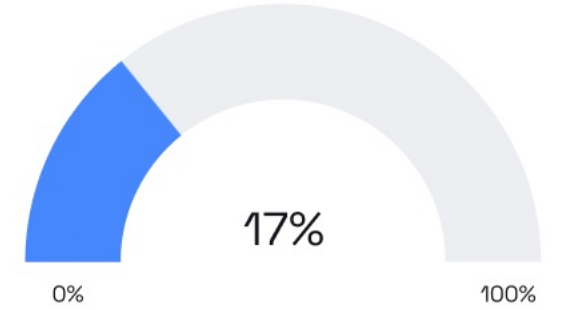
1 742 \$

CPU and Memory Usage

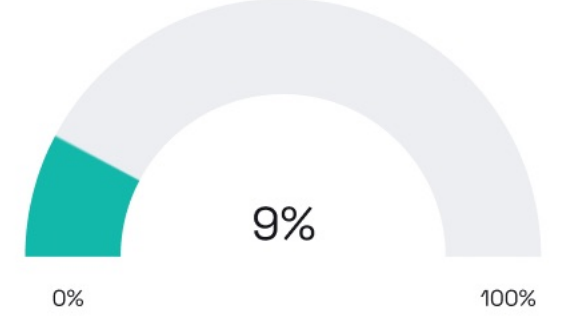


	Minimum	Maximum	Average	Last
CPU Usage	11.22%	23.36%	15.57%	17.0%
Memory usage	0.0009%	0.09%	0.01%	0.02%

CPU usage
December 2024



Memory usage
December 2024



Navigating Power BI

MAIN OBJECTIVE

Leveraging Power BI's capabilities while providing designers with flexible tools to customize and adapt.

Knowing the Power BI framework was crucial. By diving into documentation to comprehend its functionality, focusing especially on the customization of themes. This foundational knowledge allowed integrating Power BI's capabilities seamlessly into our design process.

What is Power BI?

 OVERVIEW

What is Power BI?

What is Power BI Desktop?

What is the Power BI service?

Comparing Power BI Desktop and the service

What's new?

 CONCEPT

What's new in Power BI?

The new experience in the Power BI service

The new Format pane in Power BI Desktop

Get started with Learn

 TRAINING

Create and use analytics reports

Get data with Power BI Desktop

Lice



Sign

Feat

Limited Customization Options



Predefined visuals with sparse set of personalization options.



Layout control that highly restricts alignment and spacing.



Narrow branding possibilities caused by limited choices of fonts and styles.

User Experience Issues



Performance problems with large or complex reports that may lag.

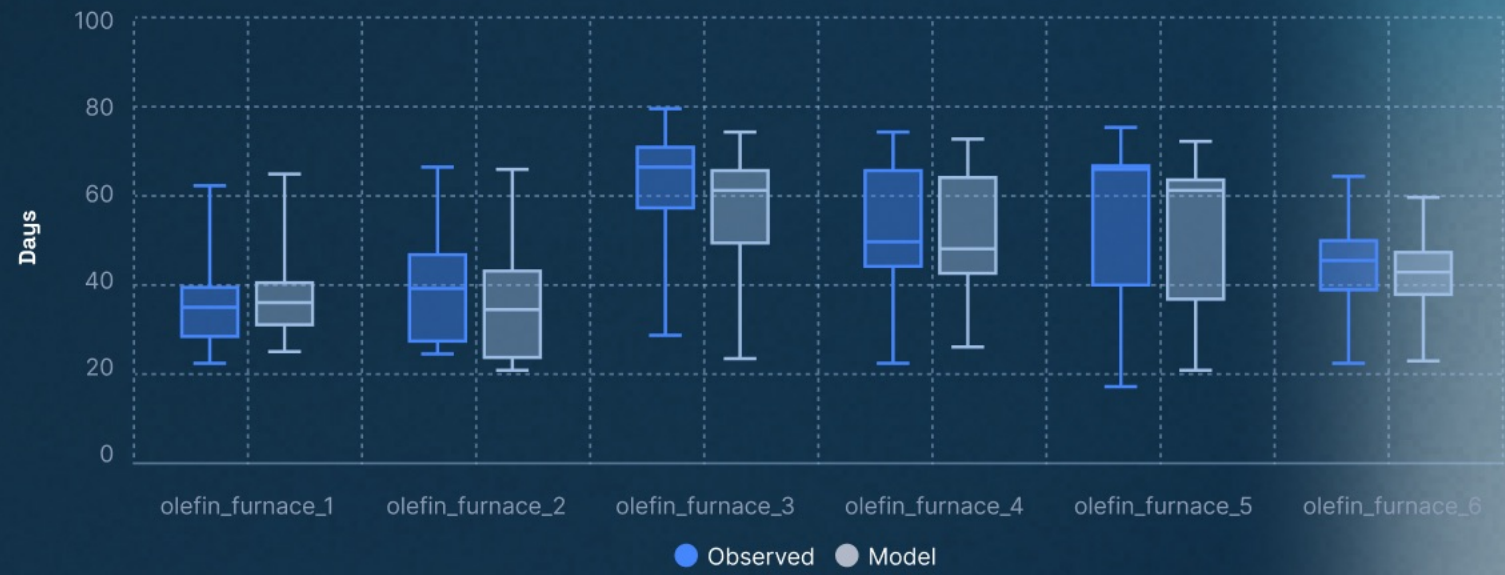


While interactivity is a strength, excessive use (e.g., too many slicers or drill-throughs) can confuse users without clear guidance.



Linear navigation which makes storytelling or presenting data difficult. Users may find navigating complex reports challenging.

Days between services



Goal Progress

64%





A Strategic Approach to Data Visualization

As organizations strive to harness the full potential of their data-driven strategies, building intuitive and insightful dashboards plays a crucial role in facilitating informed decision-making.

DESIGN PRINCIPLES

By aligning our approach with industry standards and innovative methodologies, we aimed to create a tool that not only enhances operational efficiency but also empowers stakeholders with actionable insights.

During this process we leveraged the best practices of data visualization and dashboard construction.



KEEP IT SIMPLE

Less visual elements, black background



DESIGN FOR A TARGET

You need to define the goal of the dashboard



BE CONSISTENT

If the chart is the right one use it and don't look for another one just to make dashboard more "interesting"



HIGHLIGHT WHAT'S IMPORTANT

Not all the numbers are the same. There are always some data that is more important



PICK THE RIGHT CHARTS

Choose the right visualisation



BE CLEAR

Add legend, explain what you're showing



CHOOSE THE RIGHT COLORS

We don't see colors in the same way.



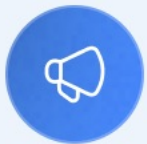
BE CONSISTENT

Use uniform design elements and a cohesive layout for easy navigation and consistent visual hierarchy



HIGHLIGHT WHAT'S IMPORTANT

Highlight key data points to clearly show trends and relationships



BE CLEAR

Emphasize key insights for quick recognition



Be consistent

Uniform design elements

Consistency in dashboards means aligning:

- font styles,
- colors,
- layouts,
- formats across visualizations and elements.

This not only prevents user confusion but also makes the interface intuitive and easy to navigate. For example, keeping similar colors for related data categories or using the same alignment for all charts can guide users' attention efficiently, making information easier to locate and interpret.

This approach contributes to a polished, professional look, enhancing readability and user satisfaction by eliminating unnecessary distractions or inconsistencies.

Align elements to cohesive and intuitive layout

We don't want to show all, only the most important information. Quick overview.

Dashboard should prioritize providing a high-level overview with key metrics and insights rather than in-depth detail.

For dashboards to achieve this level of functionality you need to highlight the need for:

approach contributes to a polished, professional look, enhancing readability and user satisfaction by eliminating unnecessary distractions or inconsistencies.

Design elements to cohesive and intuitive layout

Don't want to show all, only the most important information. Quick overview.

Dashboard should prioritize providing a high-level overview with key metrics and insights rather than in-depth detail.

To create dashboards to achieve this level of functionality you need to highlight the need for:

Intuitive visual hierarchy,

Minimal clutter,

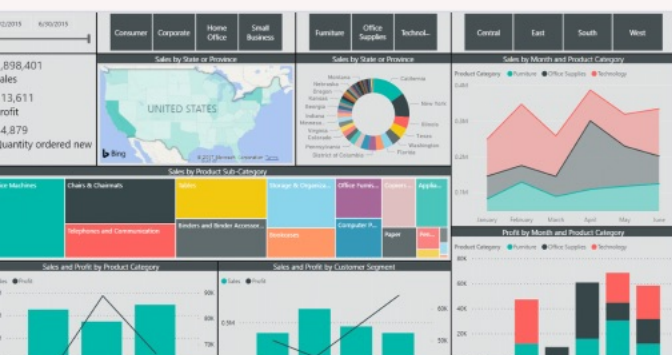
Easy access to relevant summaries,

While reports, which can be more data-heavy and granular, dashboards focus on presenting the most essential information in a way that allows users to

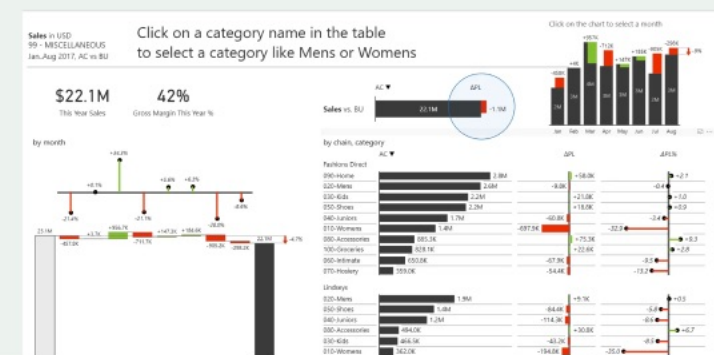
quickly understand trends, track performance, and make decisions based on key metrics. This approach allows for efficient monitoring and encourages

users to delve into specific reports if further detail is needed, ensuring dashboards remain streamlined and actionable.

DO NOT:



DO:



PICK THE RIGHT CHARTS

Choose charts that align with the data pattern and analysis goals



CHOOSE THE RIGHT COLORS

Select an accessible color palette that conveys the message effectively, including for users with color vision deficiencies



DESIGN FOR A TARGET

Structure data and choose relevant visualizations to align with user tasks and needs, ensuring the dashboard supports decision-making effectively

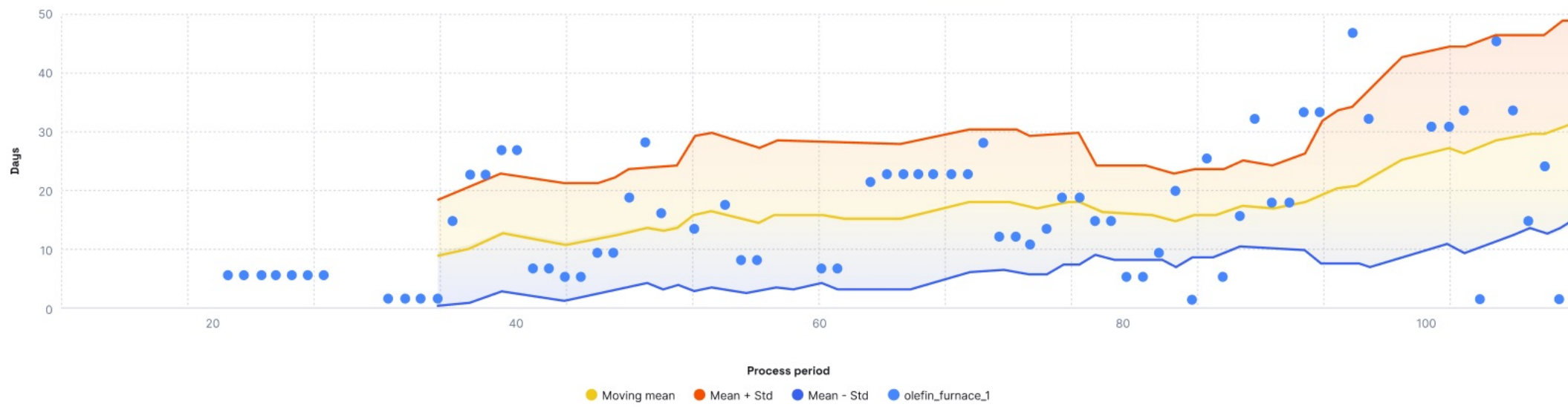
ML Ops Dashboard > Technical

Period Monthly

Technical

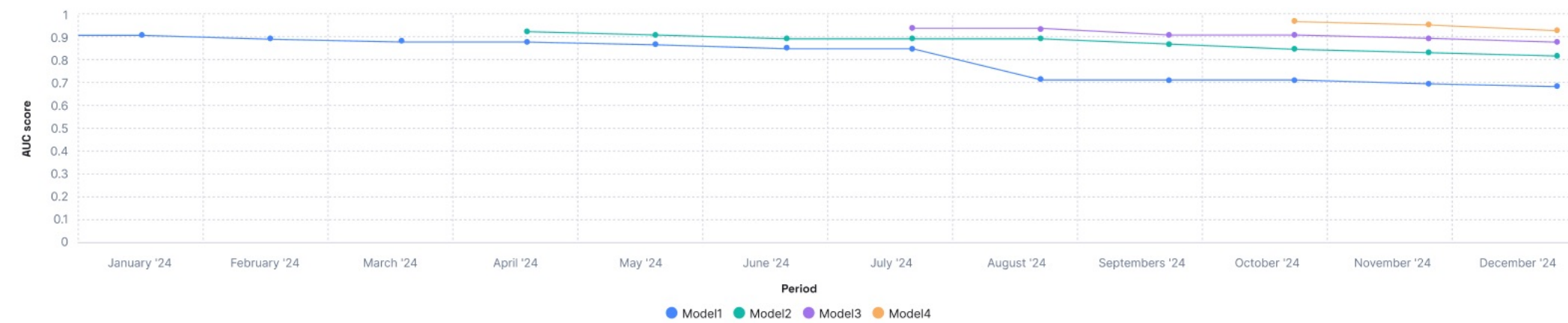
Days between services

Furnace olefin_furnace_1 olefin_furnace_2 olefin_furnace_3 olefin_furnace_4 olefin_furnace_5 olefin_furnace_6



Model drifts

Quarters



Streamlining Implementation

DELIVERABLES

This crucial phase requires precise communication to ensure that the design vision is faithfully translated into a functional product.

In our project, we created a comprehensive Figma handoff file which meticulously structured variables that mirror the structure of JSON files used to create custom themes in Power BI.

DESIGN HANDOFF

Collection of essential Power BI visuals



Slicer header

Multiple Selections

- Label
- Label
- Label
- Label
- Label
- Label
- Label
- Label
- Label
- Label
- Label
- Label

+ Button +

+ Button +

+ Button +

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+ Button +

+ Button +

+ Button +

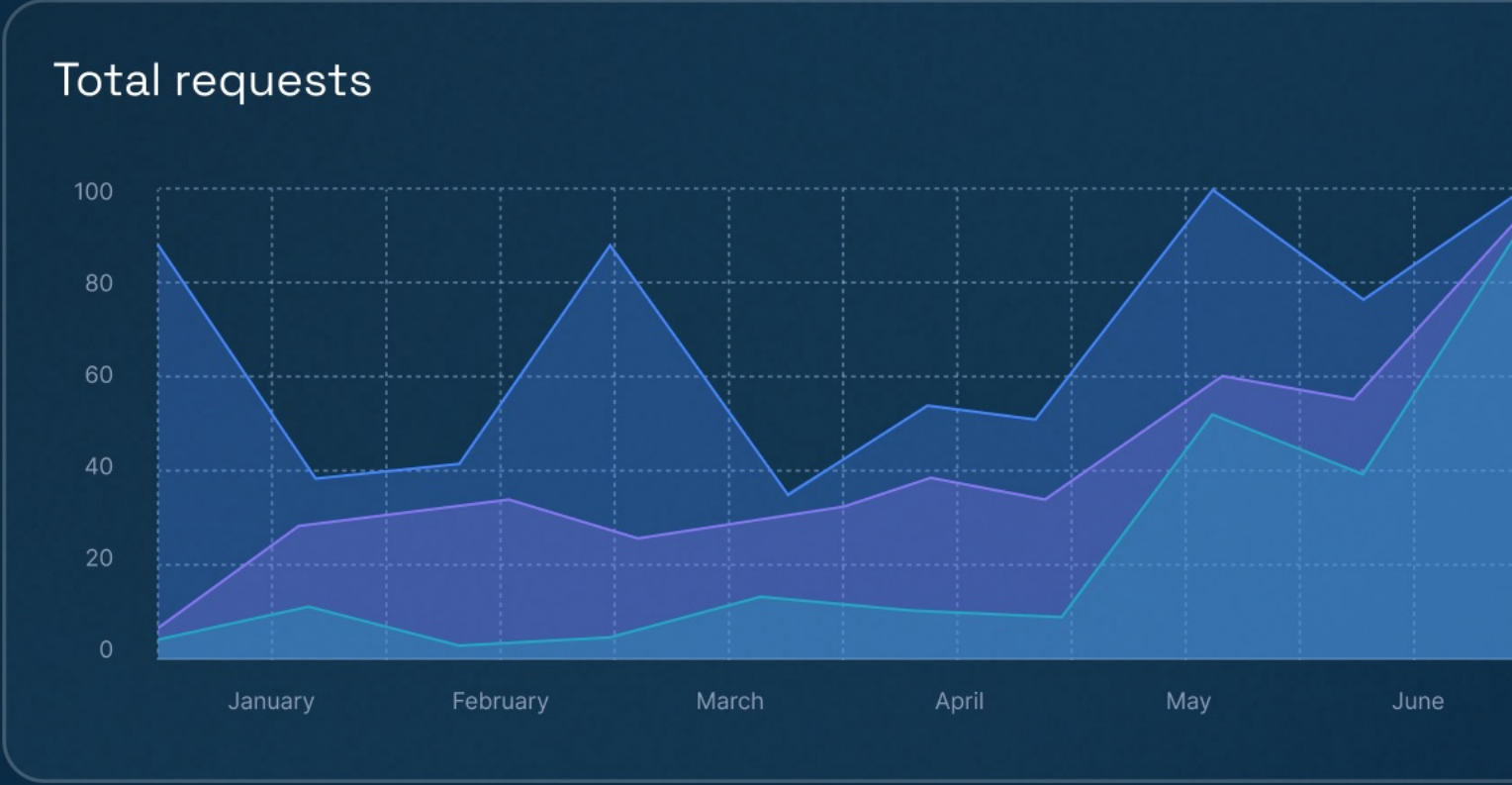
+ Button +

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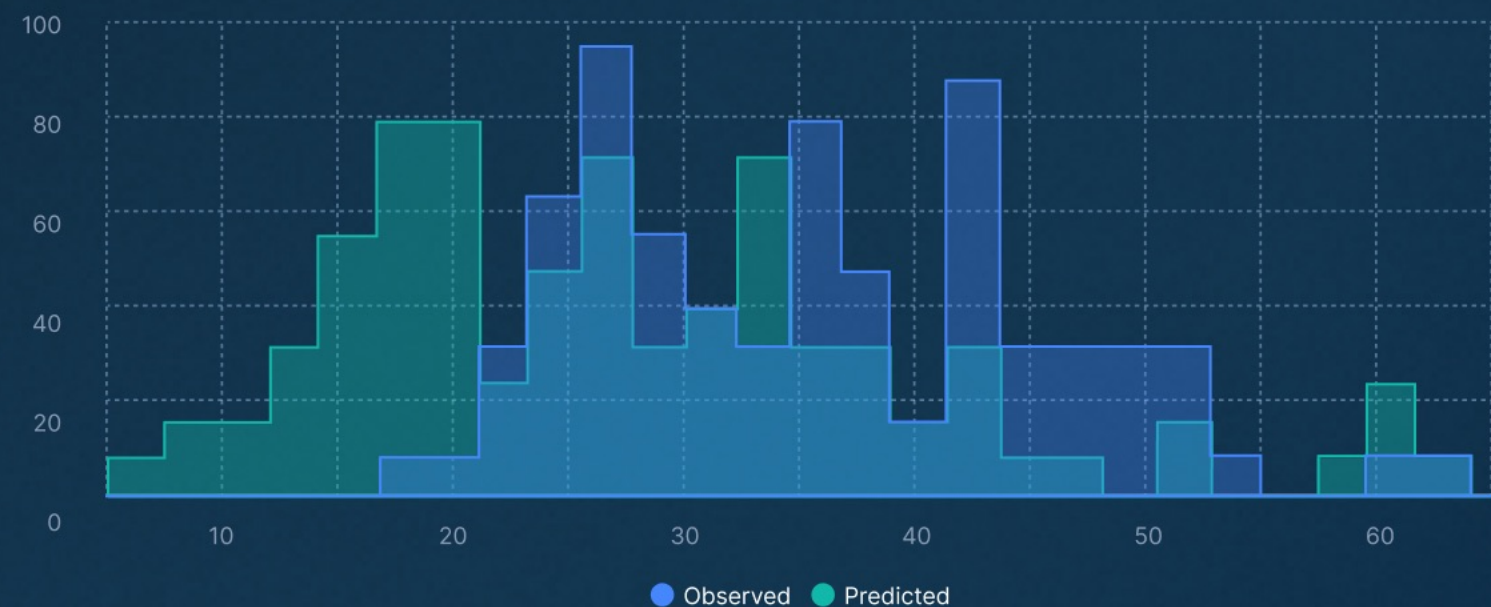
+ Button +



Documentation

```
{
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  "textClasses": {
    "callout": {
      "fontSize": 45,
      "fontFace": "DIN",
      "color": "#252423"
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    "header": {
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      "fontFace": "DIN",
      "color": "#252423"
    },
    "title": {
      "fontSize": 12,
      "fontFace": "DIN",
      "color": "#252423"
    },
    "label": {
      "fontSize": 12,
      "fontFace": "DIN",
      "color": "#252423"
    }
  }
}
```

Predicted vs. Observed



Primary class	Secondary classes	JSON class name	Default settings
Callout	N/A	callout	DIN #252423 45 pt
Header	N/A	header	Segoe UI Semibold #252423 12 pt
Title	-	title	DIN #252423 12 pt
-	Large title	largeTitle	14 pt
Label	-	label	Segoe UI #252423 10 pt
-	-	semiboldLabel	Segoe UI Semibold
-	-	largeLabel	12 pt



ML Ops Dashboard

Period Monthly

Current cost
December 2024

1 742 \$

Total errors
December 2024

4 errors

Total requests
December 2024

321

Resources

[Details →](#)



Technical overview

[Details →](#)



Machine uptime prediction

Chart Tabular

