



ARE THEY REALLY USING IT?

# MONITORING DIGITAL EXPERIENCE TO DETERMINE FEATURE EFFECTIVENESS

CARLY RICHMOND





# RED ALERT!

# ONCE UPON A TIME...

# ONCE

142 ■ THUNDER MOON

burned us, as the pup begged for a share in vain. We got strength from that meal.

Then I knew that with the spear Meri and I could eat better. I might be able to kill more swans as long as they were sitting on their nests, or to use the spear to drive them off their nests and take the eggs, or to kill fawns hidden at the edges of the plain. I might be able to throw the spear at something.

Very soon the hawks would be running, the eggs would be hatched, and the swans and cygnets would be swimming where I could never catch them. I knew I couldn't wait. Planning to kill the other swan the next night, while the moonlight lasted, I used the morning to look through the grass and low bushes for a hawk.

The thought that one of us should watch the lodge was the wolf's, not mine. Her pup might wander off but Meri wouldn't, and although the wolf might wait for me to get home before going hunting, I saw no reason to wait for her. Feeling much safer, much more dangerous, with the spear than with the axe or the antler pax, I went to the plain, hunting for young animals in every patch of long grass, in every clump of bushes.

In time I heard many hoofbeats and looked up. Two horses and a colt were running towards me, followed eagerly by a wolf - our own long-legged female. Now and then the horses would stop running to glare at the wolf, who held herself back at a distance so she wouldn't scatter them. I dash off again with the wolf alert tracks told clearly - I lay perfectly still, hardly daring to breathe. After a very long wait, during which the mare ran at the wolf several times and ravens set themselves down on the plain around us, the colt died and the mare gave up hope. Then both mares went away. Again I dared to peek, and saw the wolf taking big bites from the colt's hindquarters.

Then the horses would dash off again with the wolf alert behind them, not on their heels but far off, swinging out to the left or out to the right in a way that made the horses run towards me. A stallion driving them would not have moved them better, except that he would have been on their haunches, driving them with shoves and bites. I couldn't at first imagine why she was chasing horses to me. Then I

# elastic

pompous, coupling her pronounced safety with her insistence on minutiae like fish for dinner. She speaks insistently about what she knows about. Over time Nina has come to trust her observance, so that when she supervises restaurants when the family dines out, she trusts such places entirely. And when she stays at home and sleep through service, she sets a good example for the children. Morally, Nina is right to insist. If you are going to be religious, you must observe the Sabbath, the holiday and law. They believed in doing things by halves, which was not good enough for Nina.

Soviet delegation on the last  
the Message. But south-central  
in which they could talk unob-  
quarters at the Argus facility.  
about. Sometimes it seemed that,  
hanging by a presidential thread.  
vaguely aware, by more than that,  
so they got around to him while load-  
"The man is scared stiff," Ellie said.  
He imagines the Message is going to be  
egesis or something that shakes his fa-  
ow a new scientific paradigm subsum-  
ants to know what science has done to  
posed to be the voice of reason. Chiliasm  
Compared to the soul of moderation," deri-  
Joss is the soul of moderation these days.  
aven't explained the soul of moderation these days.  
I worry about that a lot these days—  
be sure that it isn't a message from—" "I Am  
n God or the Devil? Ken, you can't be  
how about advanced somebody like Joss?  
I good or evil, who some day like Joss  
shable from God or the Devil?"  
oever those beings are in the Vega system.  
create the universe. And they're nothing  
od. Remember, Vega, the Sun, and a  
ar neighborhood are in some backwater  
n galaxy. Why should I Am That I Am  
here must be more pressing things for him  
a bind. You know Joss is very influen-  
e presidents, including the pres-  
inclined to make some  
k she wants.

# Records

wse our record selection today!

Elements Console Sources Network Performance Memory Application Security Lighthouse » 1 ⚙️ ⋮

+ | 15:24:33 - localhost:4200 ▾

Perform an audit... 4200/records?terms=

20/26 6/7

Performance Best Practices

20/26

## Performance

▲ 0–49 ■ 50–89 ● 90–100

**METRICS**

▲ Total Blocking Time  
**400 ms**  
Sum of all time periods between FCP and Time to Interactive, when task length exceeded 50ms, expressed in milliseconds. [Learn more](#).

● Interaction to Next Paint  
**40 ms**  
Interaction to Next Paint measures page responsiveness, how long it takes the page to visibly respond to user input. [Learn more](#).

[View Trace](#) [View Treemap](#)

View Trace View Treemap

SIDE B (STEREO)  
19975883381  
33 1/3 RPM

Show audits relevant to: All TBT CLS INP



CORE WEB VITALS



LCP

# LARGEST CONTENTFUL PAINT

The render time of the largest image or text block visible within the viewport



FID

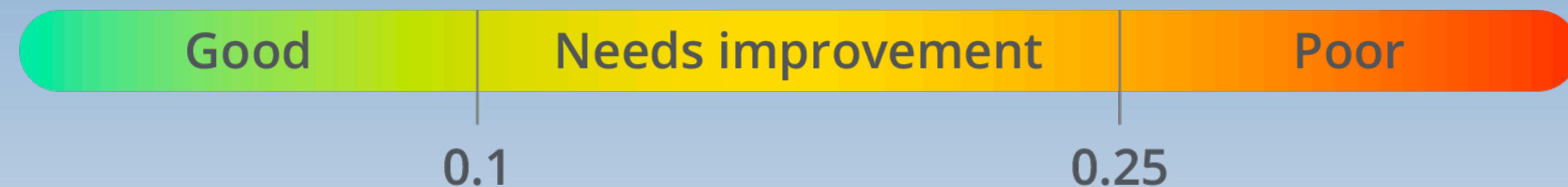
# FIRST INPUT DELAY

The time from when a user inputs an action or command  
and the page executes it



# CUMULATIVE LAYOUT SHIFT

The largest burst of *layout shift scores* for every unexpected layout shift that occurs during the entire lifespan of a page



# LIMITATIONS



# Twitter is testing a status feature that's taking us back to MySpace

Amanda Silberling @asilbwrites 9:31 PM GMT+1 • July 27, 2022

Comment



GoodUI PATTERNS TESTS LEAKS TEMPLATES COACHING BLOG Log In Get Access

## Google Has Been A/B Testing Link Colors (Again) And This Light Blue Didn't Pass

Leak #16 from Google.com | Jul 22, 2019 [Listing](#)

It's been a decade since it was first discovered that [Google has famously tested those 41 shades of blue](#).

Last month I discovered that they began experimenting with link colors on their search results screen - once again. This time Google tested a lighter blue with a lower contrast which turned out that they rejected (most likely due to a negative experiment result).



Published in Netflix TechBlog



Netflix Technology Blog

Sep 7, 2021 • 3 min read • Listen



## Decision Making at Netflix

Martin Tingley with Wenjing Zheng, Simon Ejdemyr, Stephanie Lane, and Colin McFarland

*This introduction is the first in a multi-part series on how Netflix uses A/B tests to make decisions that continuously improve our products, so we can deliver more joy and satisfaction to our members. Subsequent posts will cover the basic statistical concepts underpinning A/B tests, the role of experimentation across Netflix, how Netflix has invested in infrastructure to support and scale experimentation, and the importance of the culture of experimentation within Netflix.*

WIRED

SIGN IN SUBSCRIBE

FEATURED

HOW TO DIGITIZE OLD PHOTOS

BEREAL BASICS

BEST TABLETS FOR WORK AND PLAY

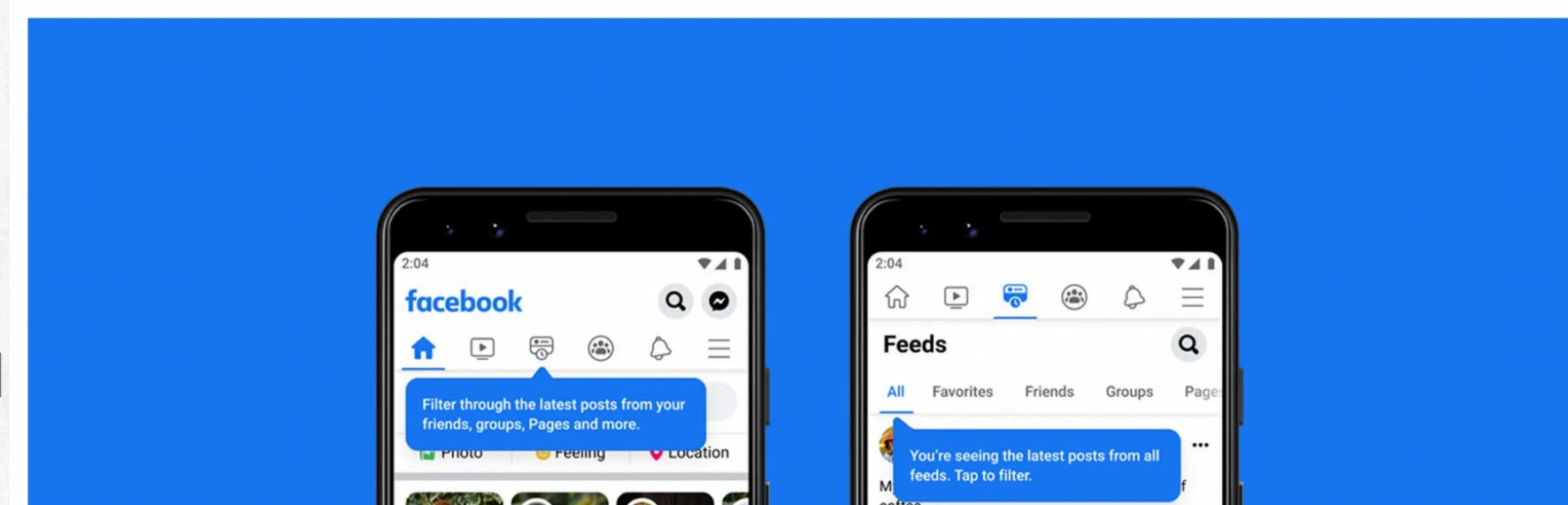
BEST CAMERA BAGS AND ACCESSORIES

BUYING GUIDES

GADGET LAB NEWSLETTER

## As Facebook Becomes TikTok, a New Feeds Tab Ditches the Algorithm

Big changes are coming to the platform.



@CarlyLRichmond

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Instagram

## Instagram rolls back some changes to app after user backlash

**Reversal includes toning down algorithm that resulted in users' feeds being deluged with videos from accounts they do not follow**

Dan Milmo *Global technology editor*

Thu 28 Jul 2022 22.48 BST





# Why CoStar's Alleged Employee Monitoring Program Could Backfire

Tom Spiggle Senior Contributor *I'm an employment lawyer who writes about your workplace rights.*

The New York Times

**Elon Musk intensifies his crackdown on working from home: Tesla is now tracking how frequently staffers swipe into the office and warning them if they don't show up often enough**



# Amazon's AI Cameras Are Punishing Drivers for Mistakes They Didn't Make

Amazon delivery drivers say surveillance cameras installed in their vans have made them lose income for reasons beyond their control.

# Workers Are Using 'Mouse Movers' So They Can Use the Bathroom in Peace

"The tables have turned in favor of the Worker," said one mouse jiggler company. "They are in power today."



# 'Bossware is coming for almost every worker': the software you might not realize is watching you

Computer monitoring software is helping companies spy on their employees to measure their productivity - often without ent

byn

TUC warns against employee monitoring after Post Office scandal

by Jo Faragher | 28 Feb 2022



yahoo!news

BUSINESS INSIDER

**JPMorgan Chase staffers complain of being 'watched' all the time as the bank seems to be growing more secretive with its employee-tracking systems**

Samantha Delouya

July 7, 2022 · 2 min read

BANKING DIVE

Deep Dive Opinion Library Events

Commercial Retail Credit Unions Payments Regulations &amp; Policy

DIVE BRIEF

## Barclays faces \$1.1B fine over alleged monitoring of employees

Published Aug. 10, 2020



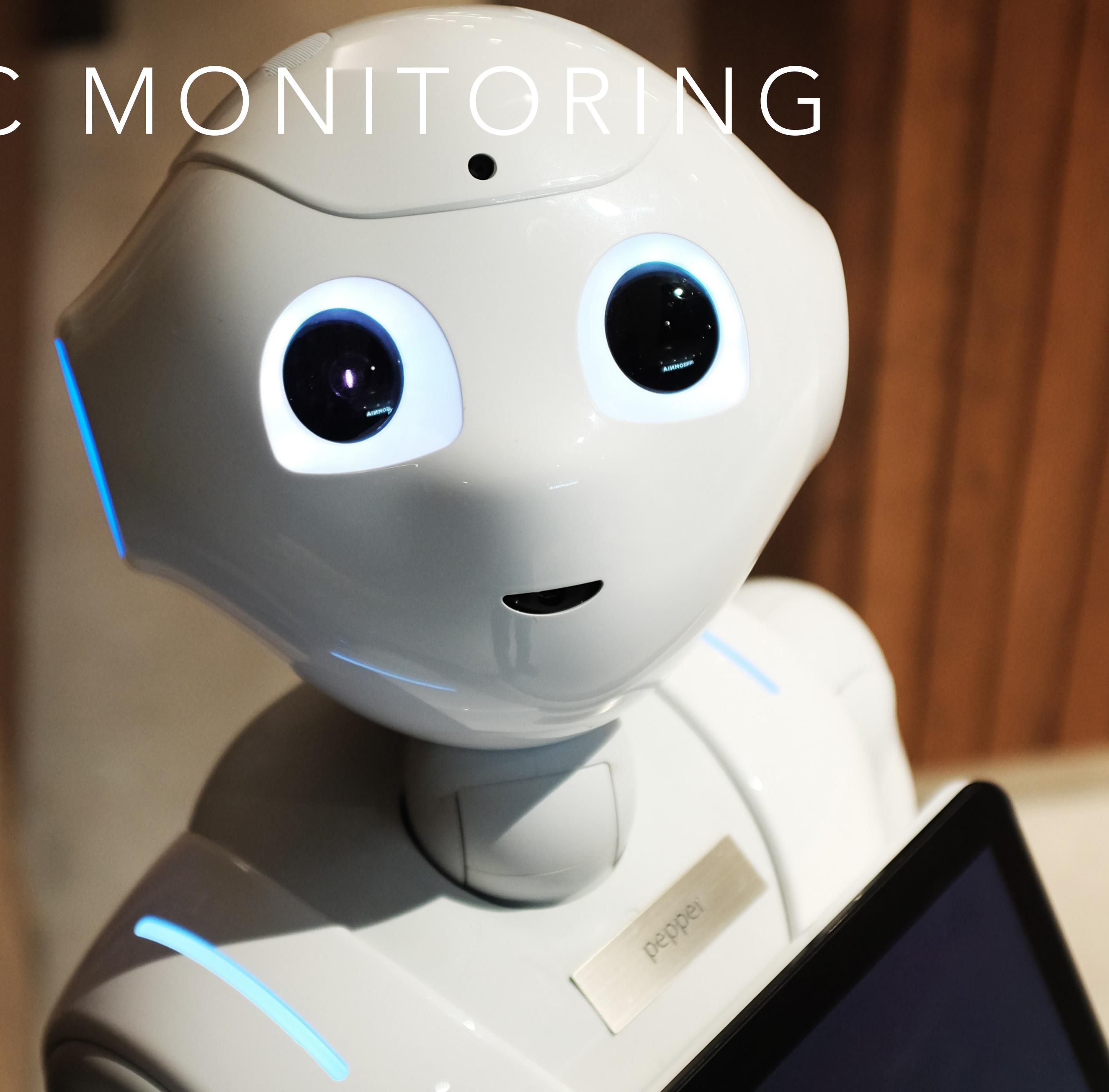
Dan Ennis

Senior Editor

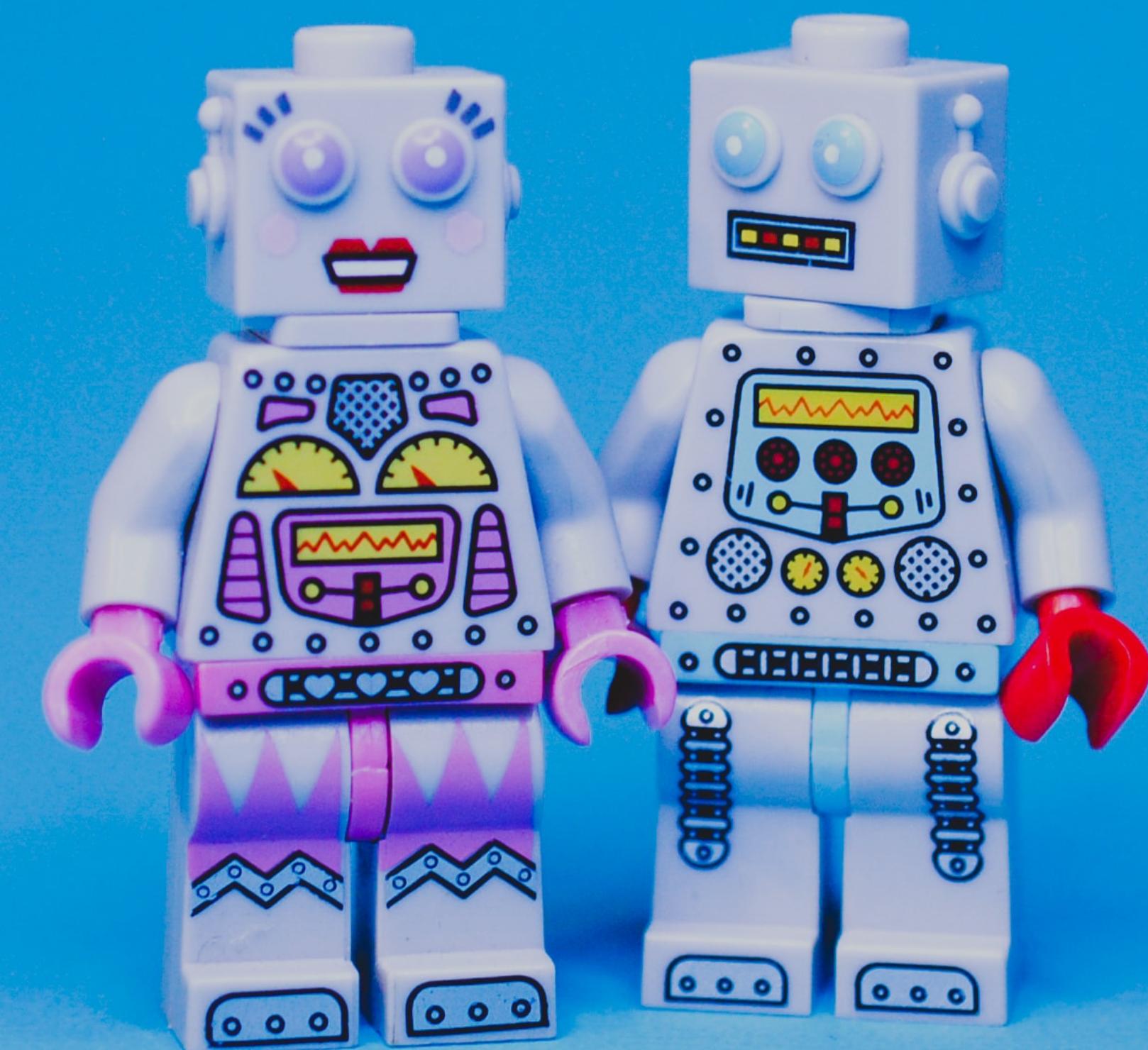
in

@CarlyLRichmond

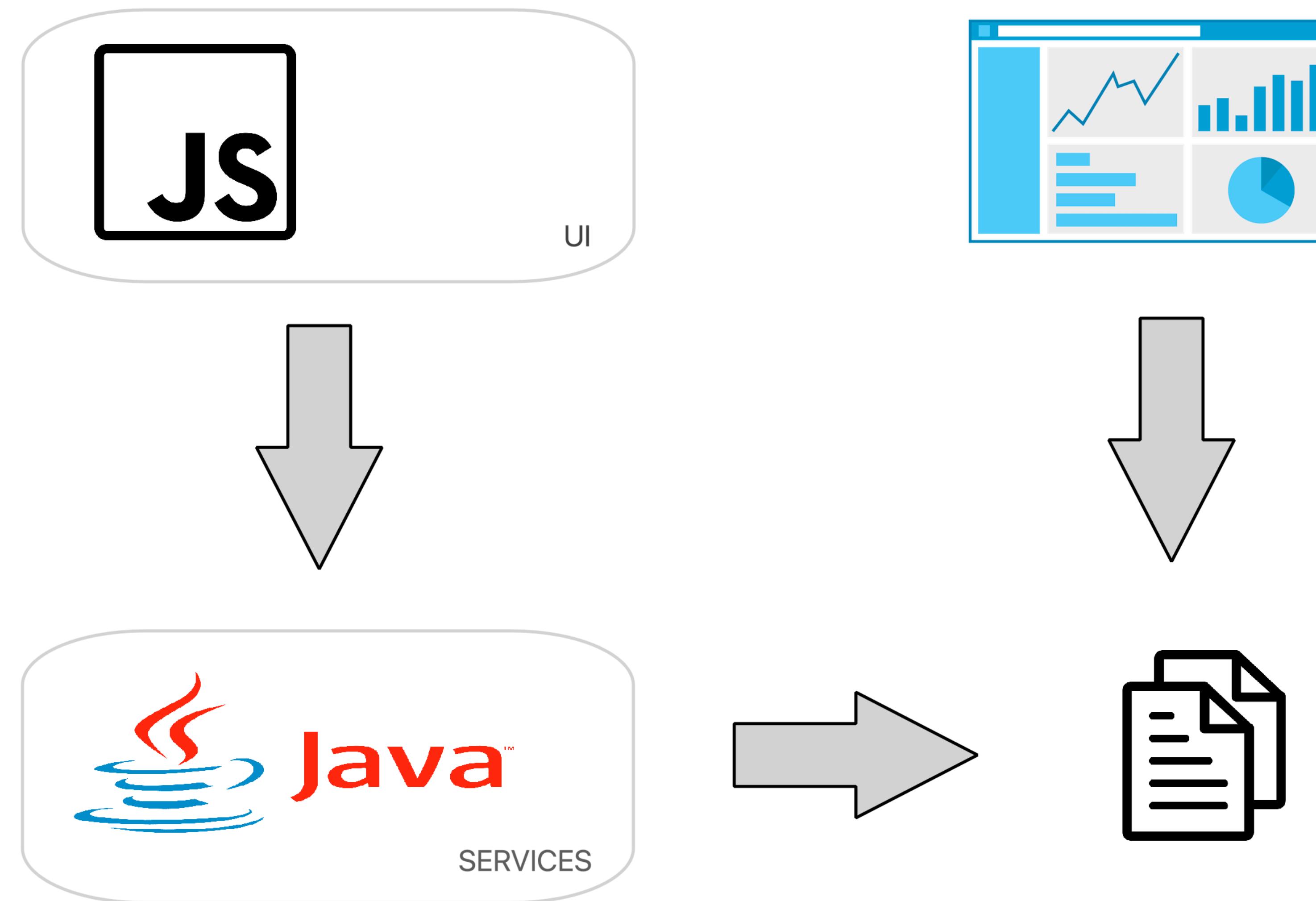
# SYNTHETIC MONITORING



# BUILD YOUR OWN MONITORING



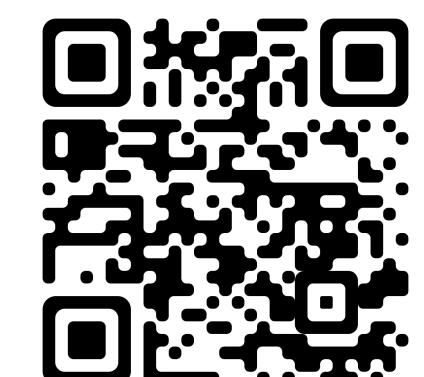
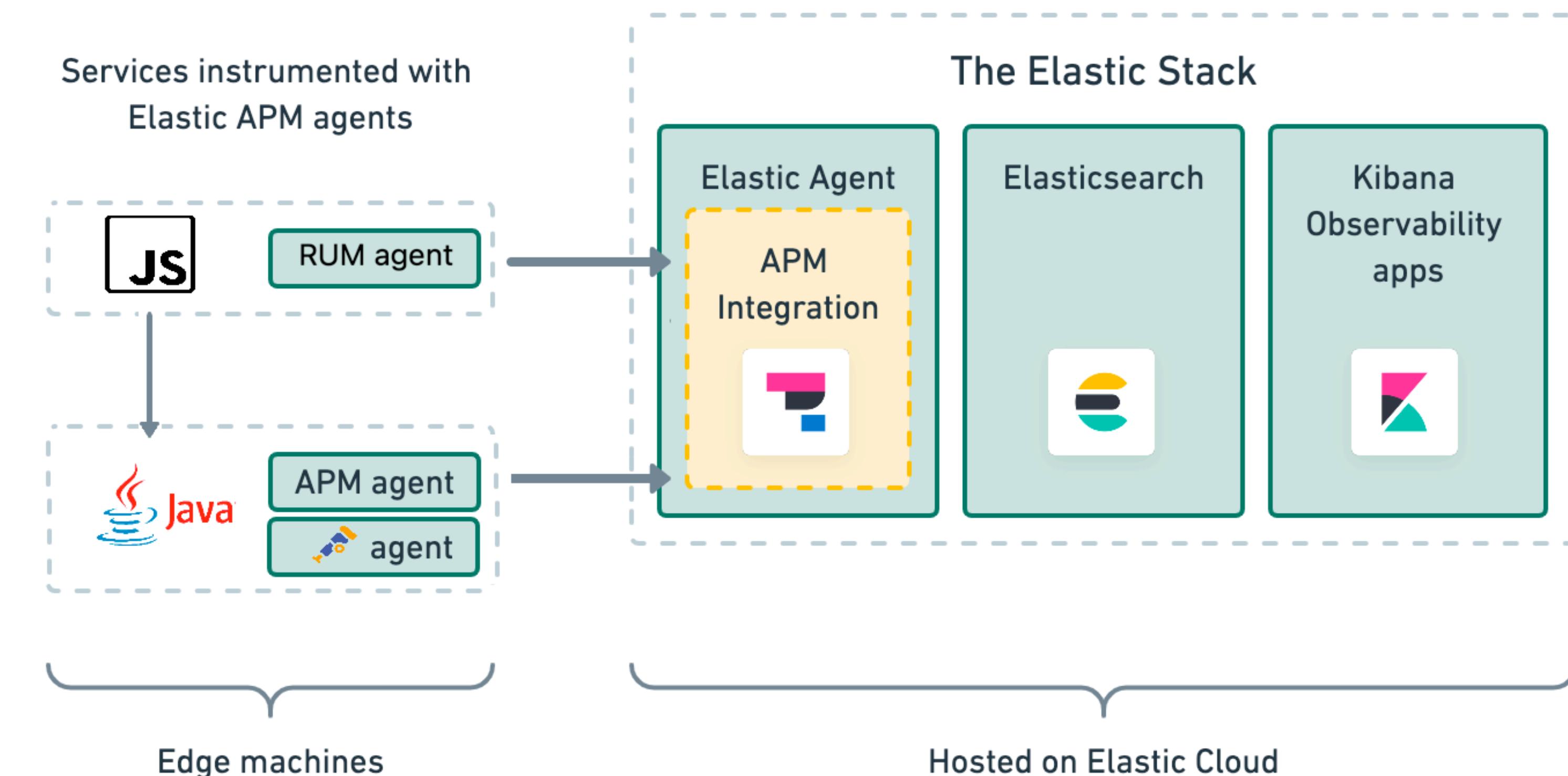
# BYO MONITORING





MORE REAL USER MONITORING!

# SAMPLE RUM ARCHITECTURE





## app.js

```
1 const apm = initApm({  
2   serviceName: 'rum-records-ui',  
3   distributedTracingOrigins: ['http://localhost:8080'],  
4   serverUrl: 'https://my-elastic-deployment:122',  
5   serviceVersion: '1',  
6   environment: 'dev',  
7 });
```



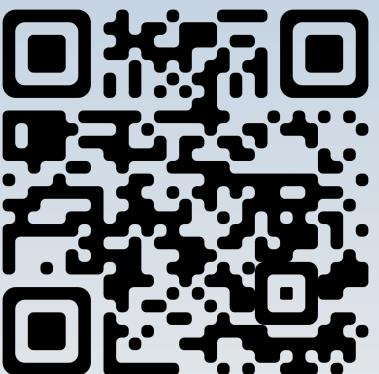
## RumRecordsServerApplication.java

```
1 package com.rum.records.store.server;  
2  
3 import org.springframework.boot.SpringApplication;  
4 import org.springframework.boot.autoconfigure.SpringBootApplication;  
5  
6 import co.elastic.apm.attach.ElasticApmAttacher;  
7  
8 @SpringBootApplication  
9 public class RumRecordsServerApplication {  
10  
11     public static void main(String[] args) {  
12         ElasticApmAttacher.attach();  
13         SpringApplication.run(RumRecordsServerApplication.class, args);  
14     }  
15 }
```



## elasticapm.properties

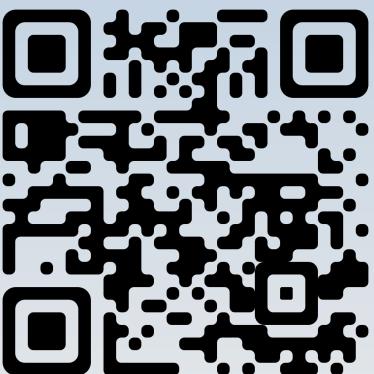
```
1 service_name=rum-records-server
2 server_urls=https://my-elastic-deployment:122
3 secret_token=sssssshhhhhhhhh
4 environment=dev
5 application_packages=com.rum.records.store.server
```





## run-my-java-app.sh

```
1 export OTEL_RESOURCE_ATTRIBUTES=
2   service.name=rum-records-server,
3   service.version=1,
4   deployment.environment=dev
5 export OTEL_EXPORTER_OTLP_ENDPOINT=https://my-elastic-deployment:122
6 export OTEL_EXPORTER_OTLP_HEADERS=Authorization=Bearer sssssssshhhhhhhhhh
7 export OTEL_METRICS_EXPORTER=otlp
8 export OTEL_LOGS_EXPORTER=otlp
9 export OTEL_TRACES_EXPORTER=otlp
10
11 java -javaagent:/path/to/opentelemetry-javaagent.jar
12   com.rum.records.store.server.RumRecordsServerApplication
```





# IT'S SO SLOW



**Observability**

Overview

Alerts

Cases

Logs

Stream

Anomalies

Categories

Metrics

Inventory

Metrics Explorer

APM

Services

Traces

Dependencies

Service Map

Uptime

Monitors

TLS Certificates

User Experience

Dashboard**Dashboard**

Last 30 days

Refresh

Web application rum-records-react-ui

Percentile 50th (Median)

Environment All

Filter by URL

Location 1

Device 1

OS 1

Browser 5

▼

▼

**Page load (median)**

Total②

**439 ms**

Backend②

**13 ms**

Frontend②

**426 ms**

Total page views

**385****Metrics (median)**

First contentful paint②

**300 ms**

Total blocking time②

**15 ms**

No. of long tasks②

**2**

Longest long task duration②

**101 ms**

Total long tasks duration②

**137 ms****Core web vitals ②**

88% of the traffic represented ②

Largest contentful paint②

**324 ms**

● Good (80%) ● Needs improvement (10%) ● Poor (10%)

First input delay②

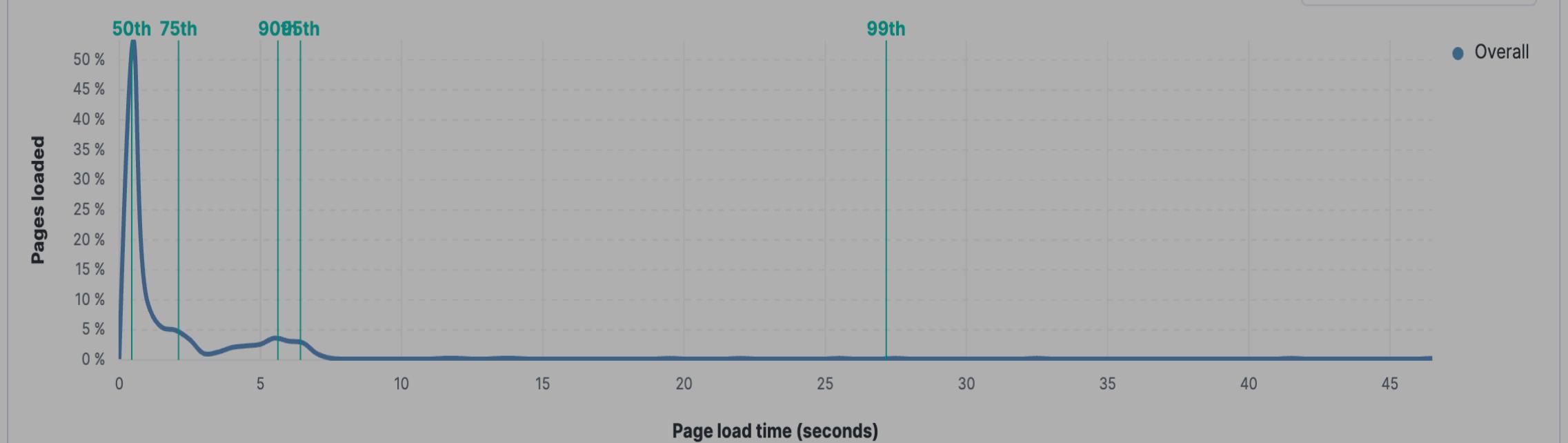
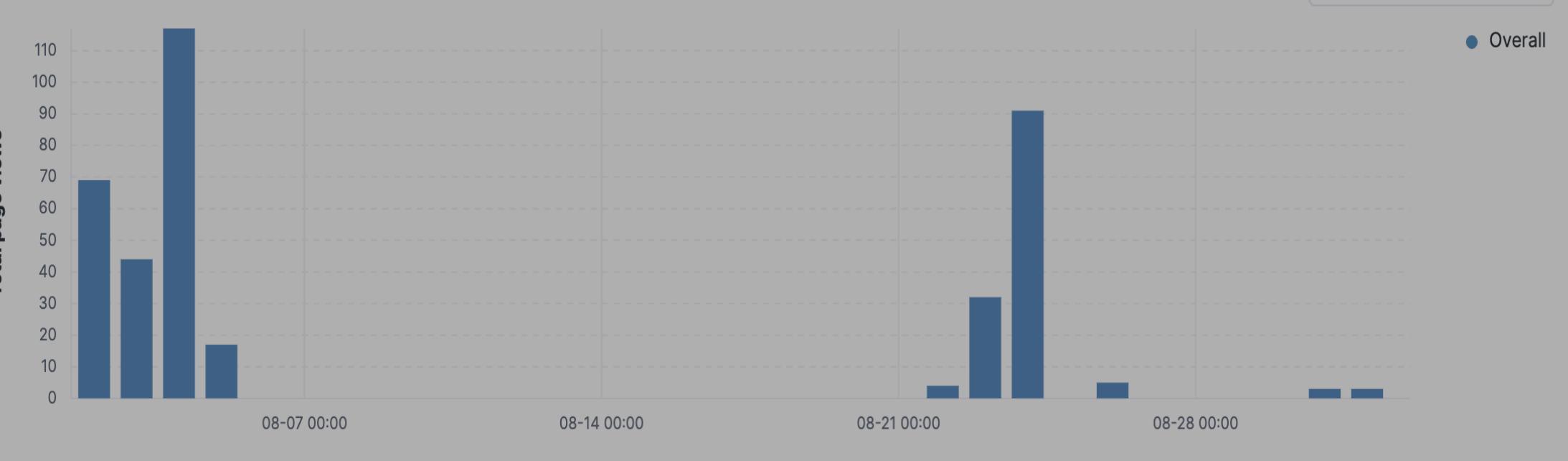
**1 ms**

● Good (100%) ● Needs improvement (0%) ● Poor (0%)

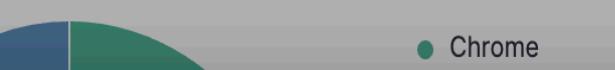
Cumulative layout shift②

**0.008**

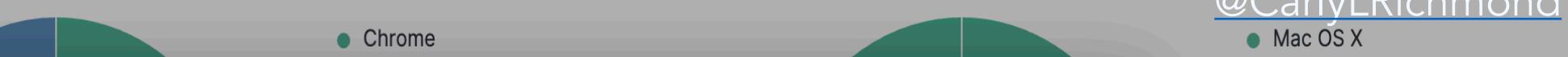
● Good (89%) ● Needs improvement (7%) ● Poor (4%)

**Page load distribution****Total page views****Page load duration by region (avg.)****Visitor breakdown**

Browser



Operating system



@CarlyLRichmond

Mac OS X

## Observability

Overview

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## Infrastructure

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## APM

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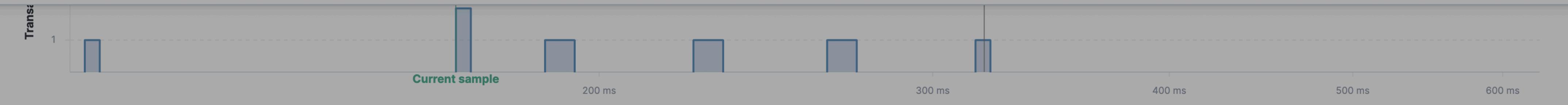
## Uptime

Monitors

TLS Certificates

## User Experience

Dashboard



Trace sample &lt; &lt; 1 of 10 &gt; &gt;

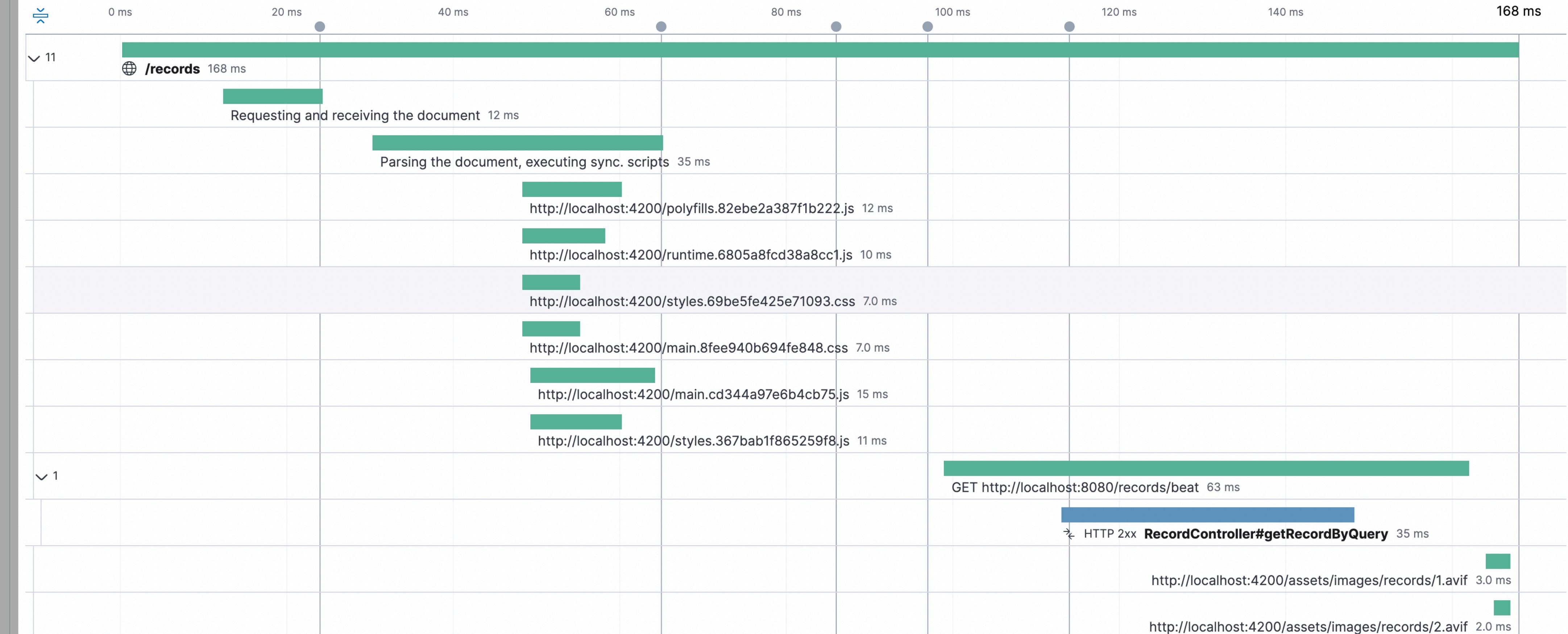
Investigate ▾

View full trace

2 hours ago | 168 ms (100% of trace) | http://localhost:4200/records?terms=beat | Chrome (105.0.0.0)

Timeline Metadata Logs

Services rum-records-react-ui rum-records-server



A photograph of a man and a woman in profile, facing each other. They are both wearing dark grey t-shirts and have their mouths open as if they are shouting or arguing. The man's right hand is pointing towards the woman, and the woman's left hand is pointing towards the man. They appear to be in a room with white walls.

CONFLICTING ACCOUNTS

Contentful paint

ms

Good (80%) Needs improvement (10%) Poor (10%)

First input delay

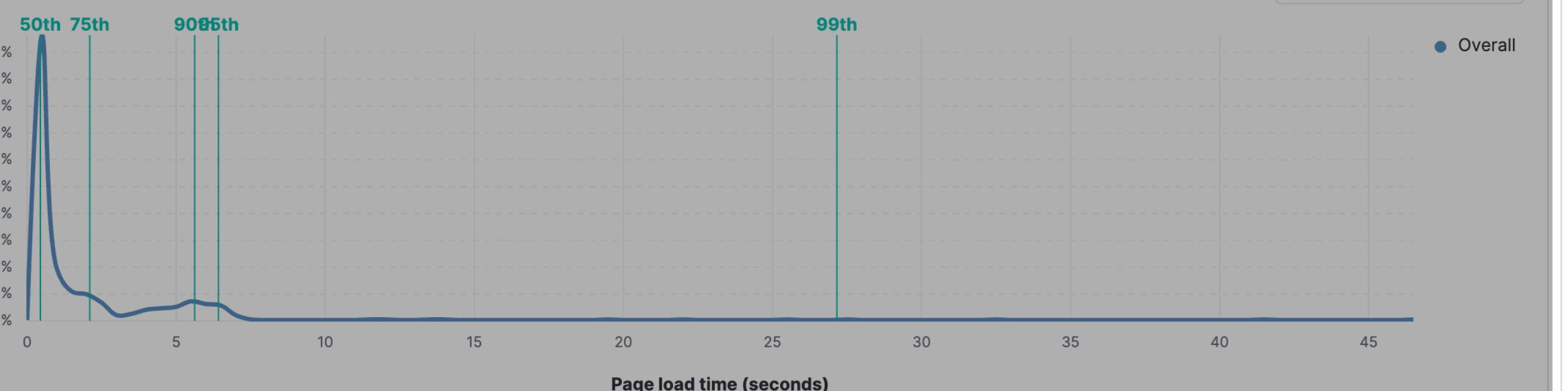
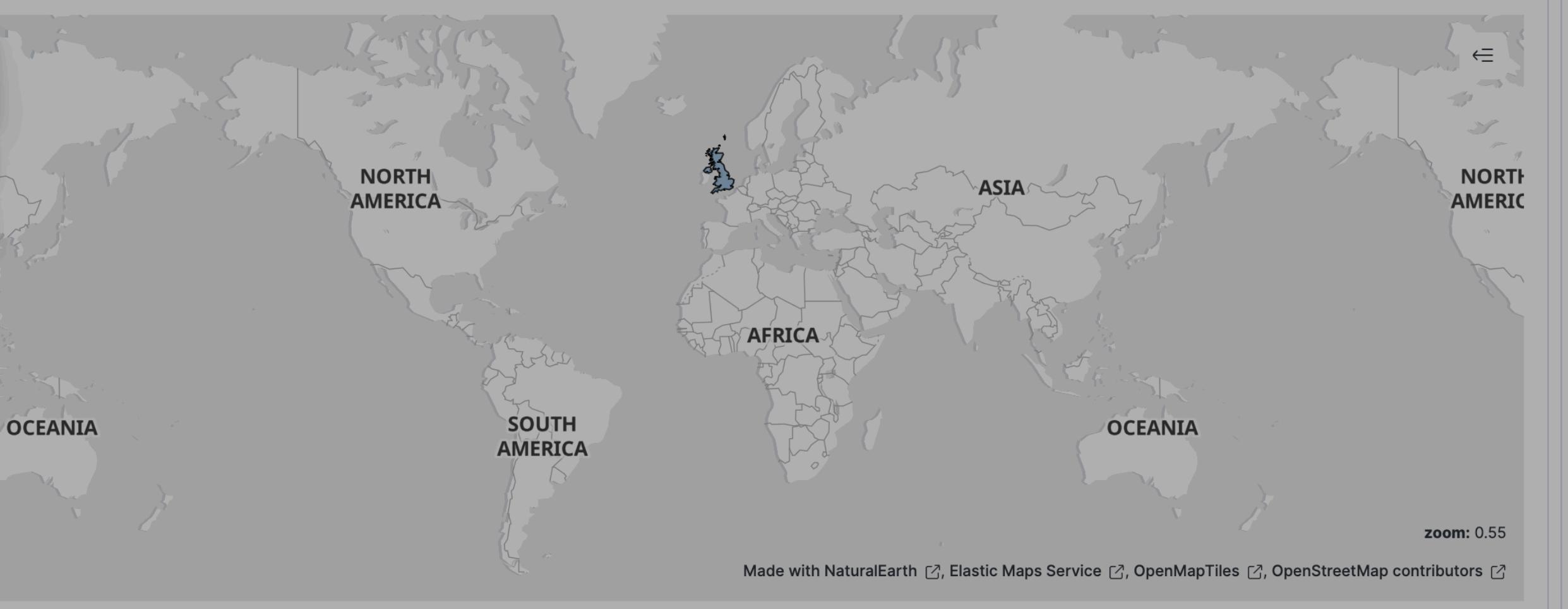
ms

Good (100%) Needs improvement (0%) Poor (0%)

Cumulative layout shift

0.008

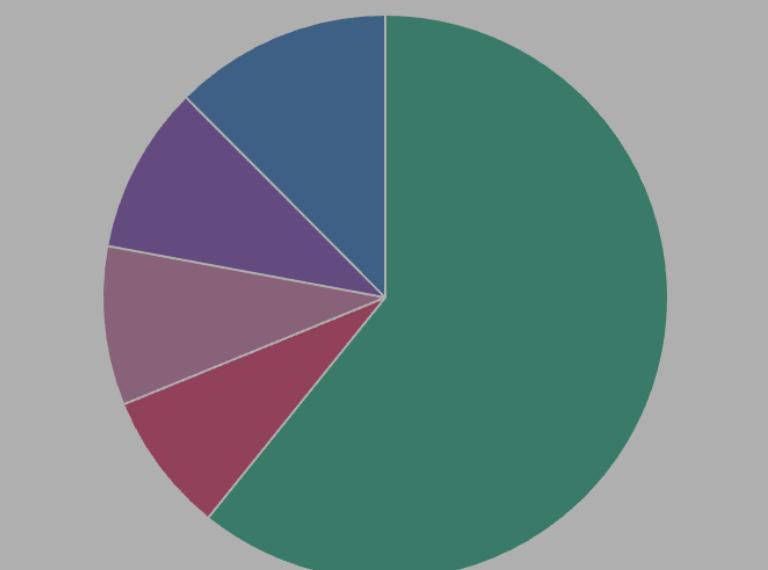
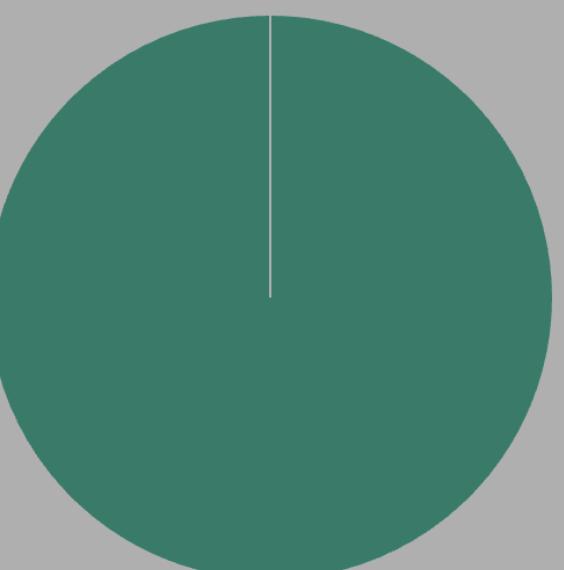
Good (89%) Needs improvement (7%) Poor (4%)

**Load distribution****Load duration by region (avg.)****Script errors**

errors

message

Unhandled promise rejection: AxiosError: Network Error

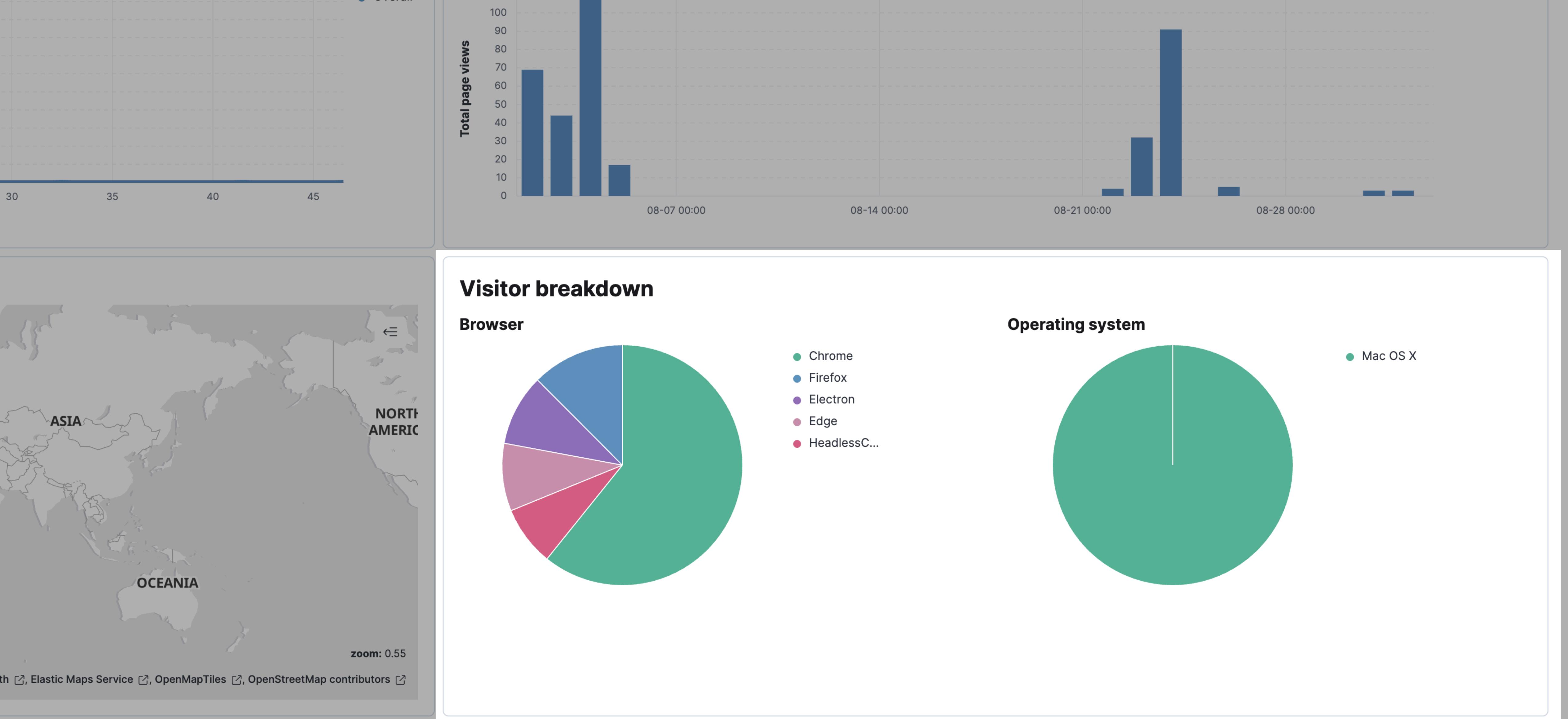
**Total page views****Visitor breakdown****Browser****Operating system**

Impacted page loads

0.5 %

NOT WORKING FOR A PARTICULAR USER





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Dashboard

## rum-records-react-ui

JS

Explore data

Environment All

▼

Overview Transactions Errors Service Map

Search errors (E.g. http.response.status\_code &gt;= 400)

Comparison 02/07 09:27 - 02/08 00:00

Last 30 days

Refresh

## Error group Ob4a4

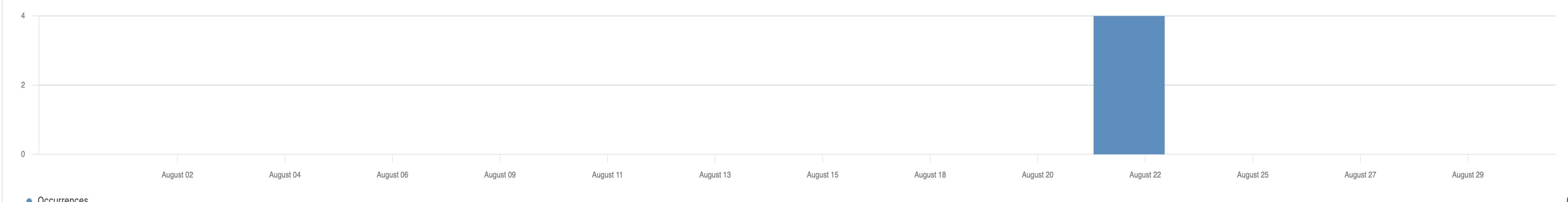
Exception message

**Unhandled promise rejection: AxiosError: Network Error**

Culprit

(inline script)

## Occurrences



## Error occurrence

View 4 occurrences in Discover

9 days ago | Edge (104.0.1293.63) | Click - input

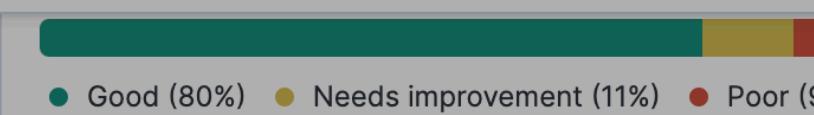
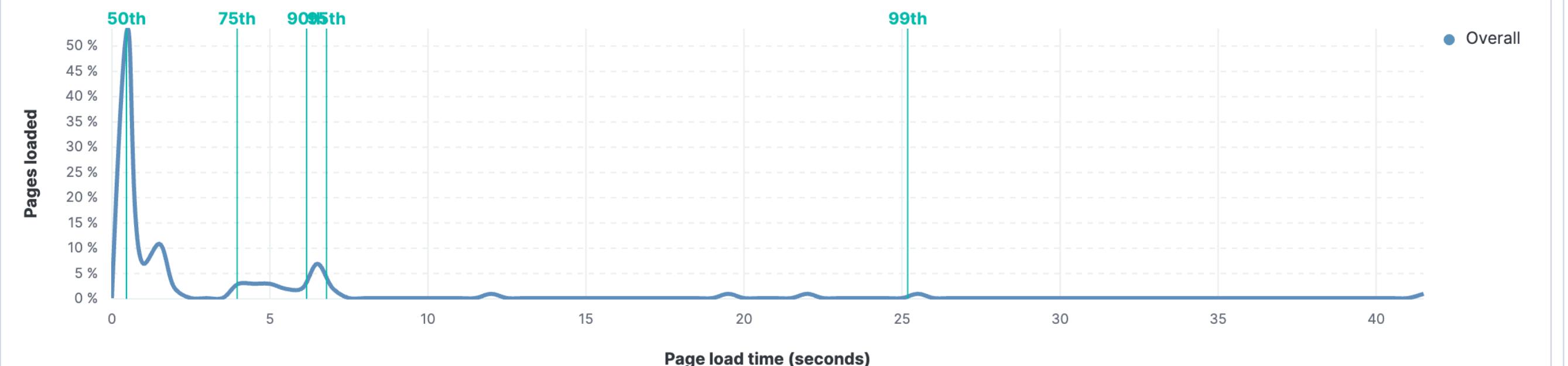
Exception stack trace Metadata

**Unhandled promise rejection: AxiosError: Network Error**

No stack trace available.

# NO LONGER USING IT (PROMISE)

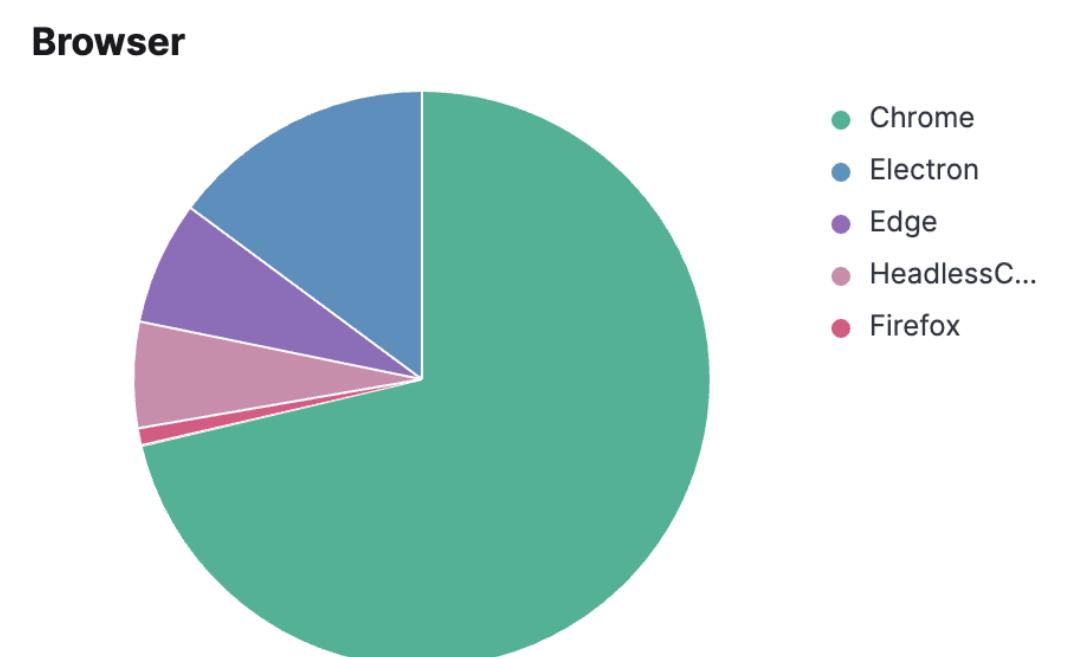
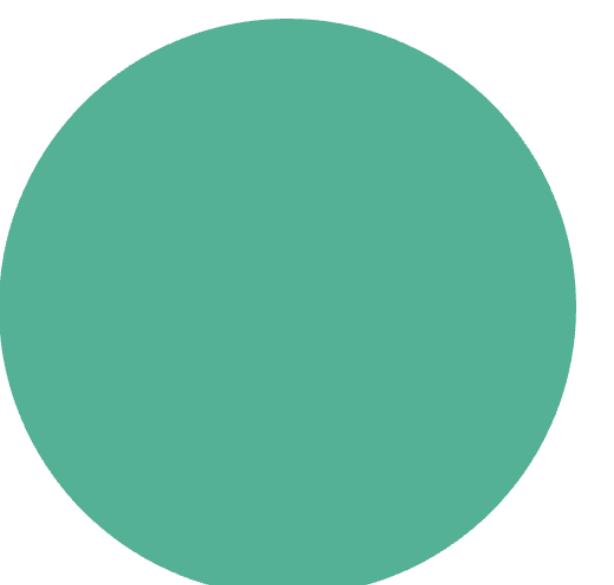


**Page load distribution****Page load duration by region (avg.)****JavaScript errors**

Total errors

**2****Error message**

Unhandled promise rejection: AxiosError: Network Error

**Total page views****Visitor breakdown****Operating system**

TRY YOUR LIPS OUT

DANKE !

THANK YOU !

MERCI !

GRAZIE !

GRACIAS !

DANK JE WEL !

• • • • • • •

