LET'S GO

The Hackathon

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01. **USER RSEARCH**
UX DESIGN

02. **DATA**
DATA SCIENCE

03. **FIGMA PROTOTYPE**
UX/UI DESIGN

04. **DEMO**
SOFTWARE ENGINEER

THE TEAM

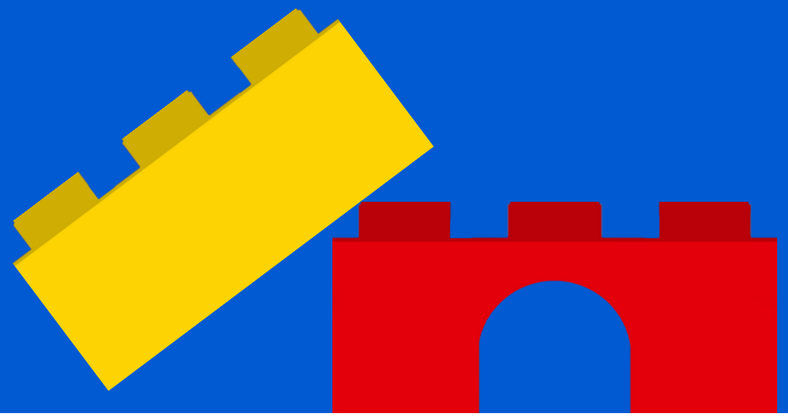
Franco
UX/UI

Benedikt
Data Science

Temi
Software Engineer

01.

USER RESEARCH



OUR STARTING POINT

How might we assist adults in selecting the right gift for a kid’s birthday?

WHY IS IT A PROBLEM?

Returns

Unsatisfaction

Frustrations

SECONDARY RESEARCH

Germany is LEGO Group's biggest market

German average child bearing age is 31.1 years

The most bought product is for the age range 6-10

SECONDARY RESEARCH

87% of children exert a significant influence on the final purchasing decision.

64% search for the specific type of toy their child desires

100% of children are happy when they get a gift they wanted

TANJA SCHUTZ

German
The Millennial Mom
Berlin, Germany
38 years old
Marketing Manager

Goals & Needs

- **Simplicity:** Want a straightforward process to select age-appropriate and interest-aligned gifts.
- **Confirmation:** Need a way to confirm that the child will like the gift, potentially through subtle inquiries or technology.
- **Balance:** Seek a balance between educational and entertaining gifts.

Pain Points

- **Overwhelming Choices:** The vast array of available toys and products makes decision-making challenging.
- **Age Appropriateness:** Ensuring the gift is suitable for the child's developmental stage.
- **Parental Preferences vs. Child's Desires:** Balancing what they think is best with what the child actually wants.

HANS-PETER SCHUTZ

German
The Builder
Berlin, Germany
9 years old
Student

Goals & Needs

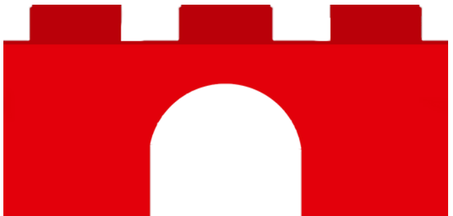
- Loves **dinosaurs and Star Wars**
- Enjoys **building** things and playing
- Wants to find a way **to combine his love for building and his love for Star Wars**
- Owns LEGO and Mattel already

Pain Points

- He can’t always find things that are **stimulating enough** for him
- **Gets frustrated** when parents don’t understand what he wants
- Received **a present he didn’t like** last birthday present
- Might throw a tantrum

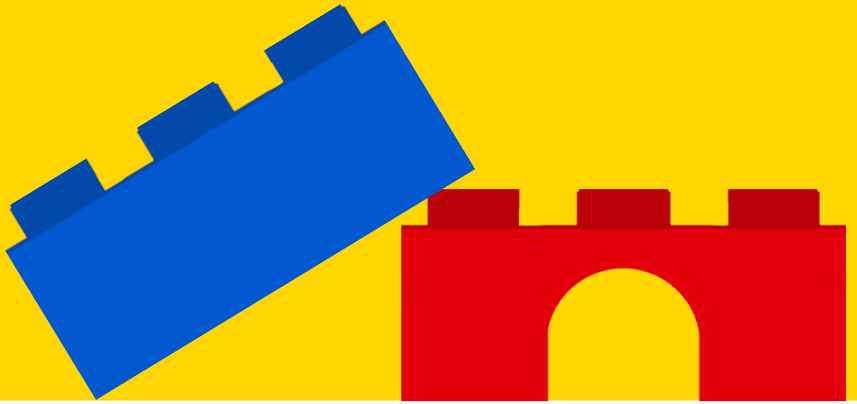
THEREFORE WE DECIDED TO KEEP THIS IN MIND

1. The **child is the ultimate deciding factor**, so they should be taken into consideration
2. Current parents are Millennials, meaning they are **tech-savvy**
3. Ultimately, we want to offer the most **tailored recommendation that would also be the best sale**
4. We need to keep it **kid-friendly, but also parent friendly**



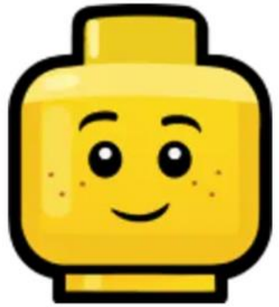
02.

DATA: CRAFTING THE SOLUTION



PROBLEM

How old are they?

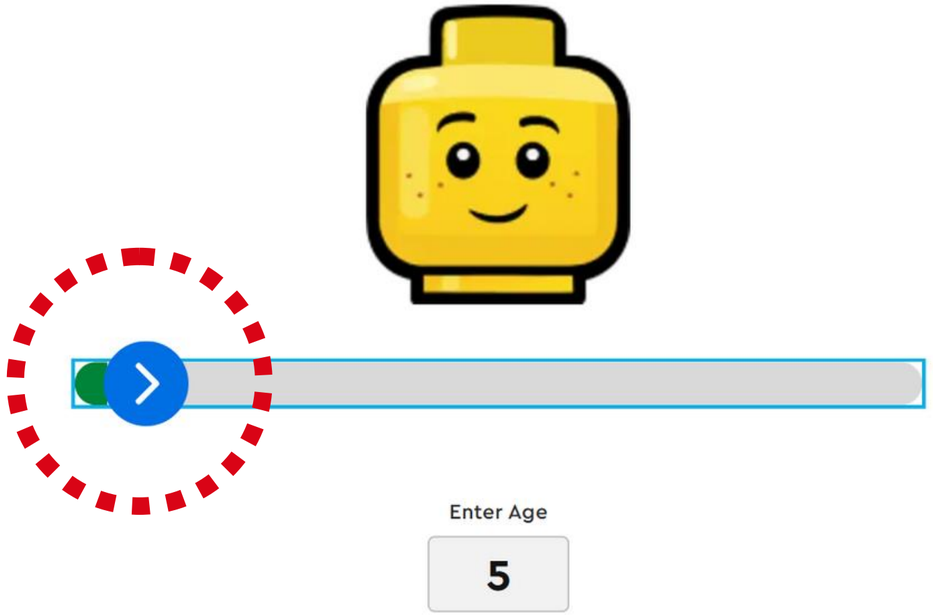


Enter Age

5

PROBLEM

How old are they?



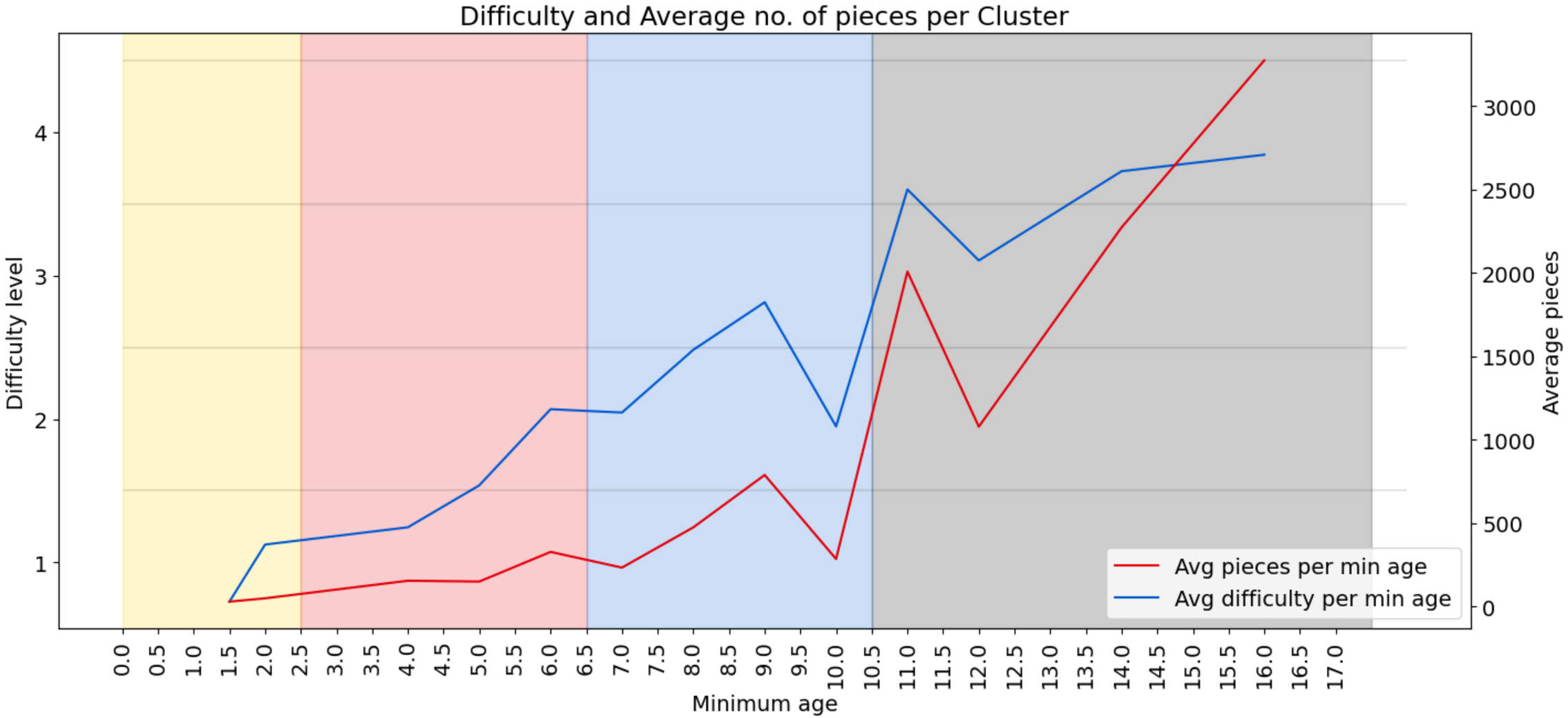
Enter Age

5

PROBLEM

Out of Age Range (Age 5) , two suggestions

SOLUTION


Difficulty and Average no. of pieces per Cluster
Difficulty level
Average pieces
Minimum age
Avg pieces per min age
Avg difficulty per min age
1
2
3
4
0
500
1000
1500
2000
2500
3000
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0
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6.0
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7.0
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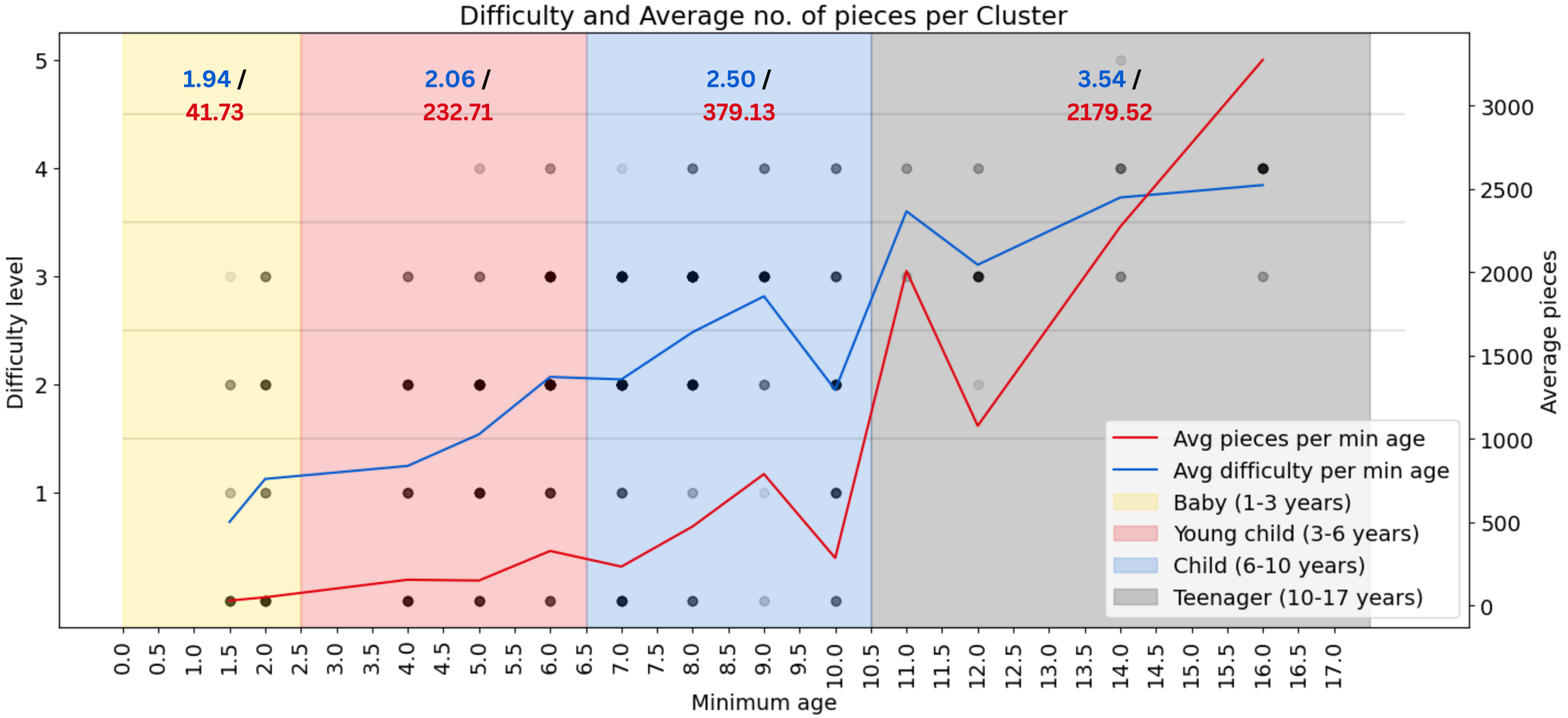
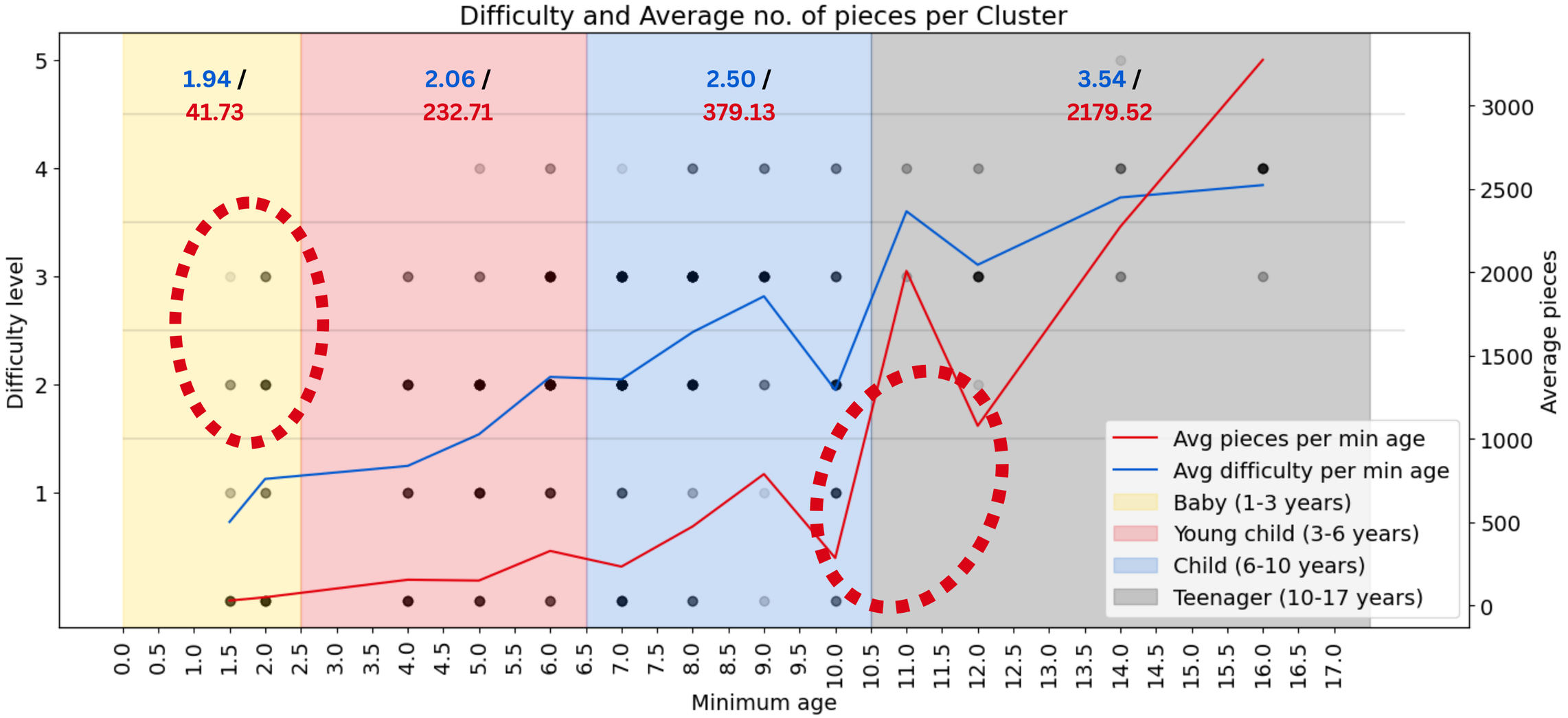
14.5
15.0
15.5
16.0
16.5
17.0

SOLUTION


Difficulty and Average no. of pieces per Cluster
1.94 /
41.73
2.06 /
232.71
2.50 /
379.13
3.54 /
2179.52
Difficulty level
Average pieces
Minimum age
Avg pieces per min age
Avg difficulty per min age
Baby (1-3 years)
Young child (3-6 years)
Child (6-10 years)
Teenager (10-17 years)

SOLUTION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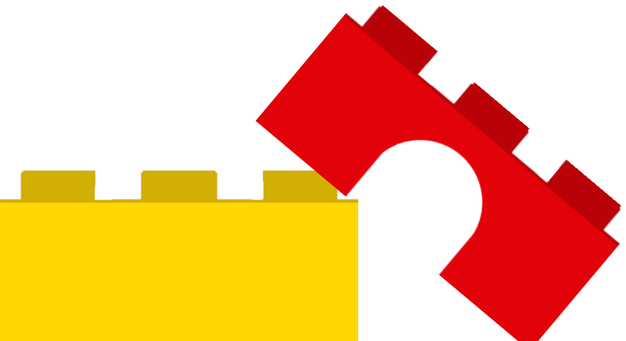
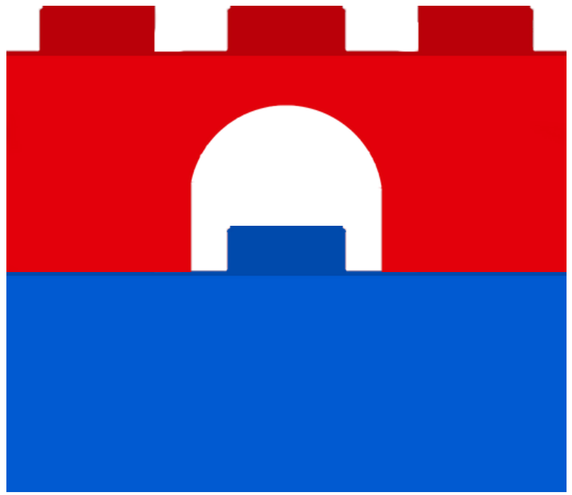
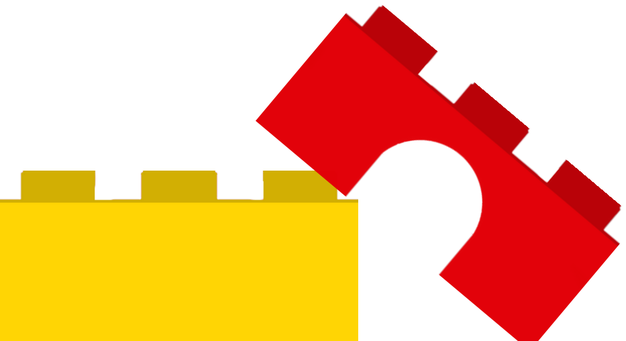
Recommendation Algorithm



User Input

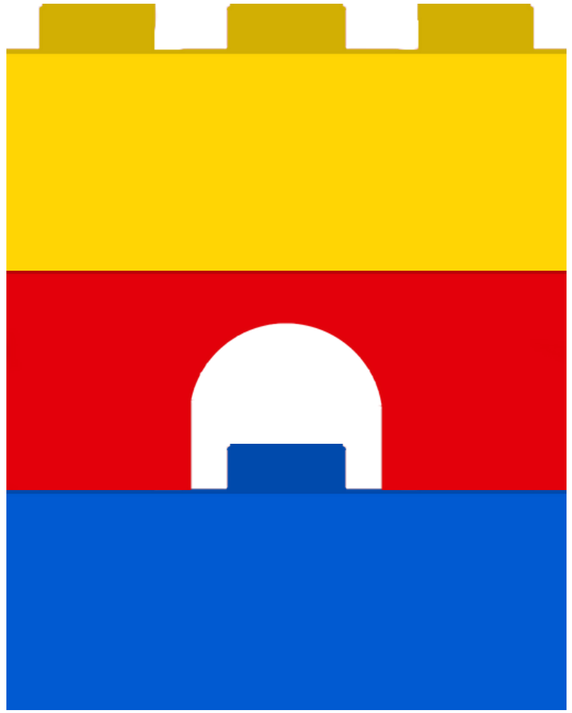
Recommendation Algorithm



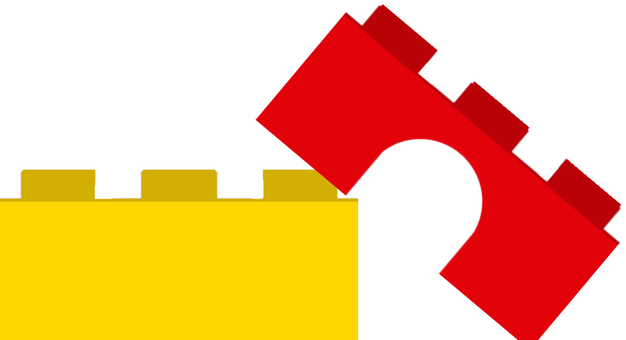


Recommendation

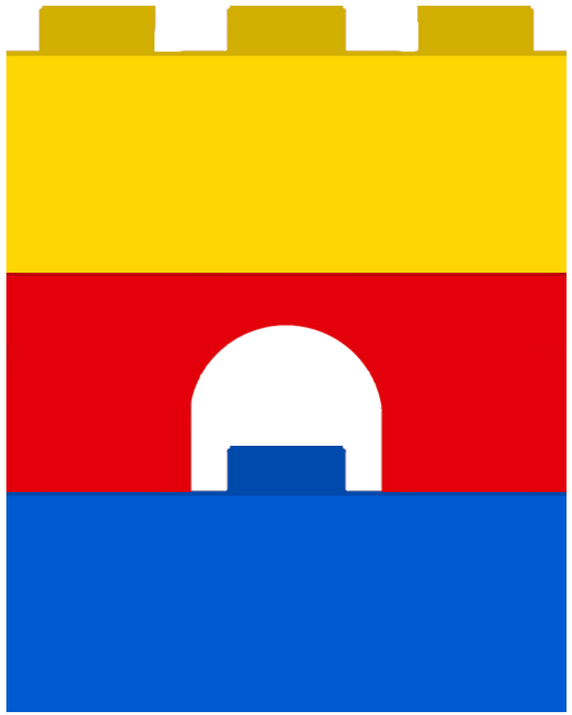
Recommendation Algorithm



Trend-data



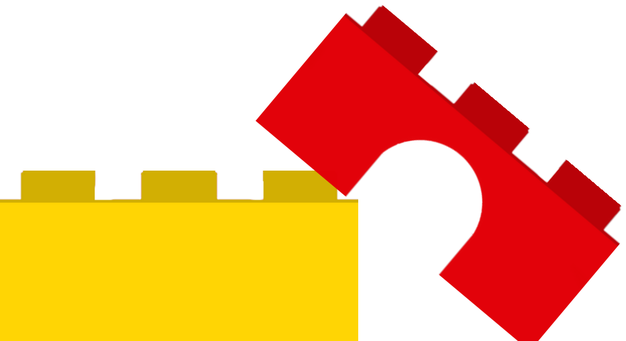
Recommendation Algorithm



Trend-data

Recommendation

User Input



User Input

1. **Location**

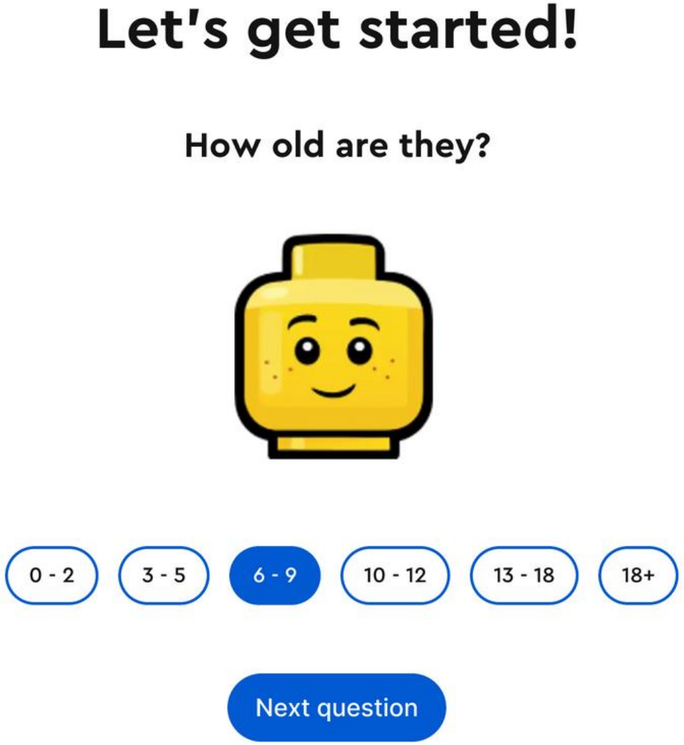
2. **Age range**

3. **Interests**

4. **Activity**

5. **(Previous orders)**

6. Removed price choice



Recommendation

1. TF-IDF algorithm based on the LEGO Group data

a. Product description (similarity analysis)

b. Size (dimension)

c. Number of parts

d. Difficulty

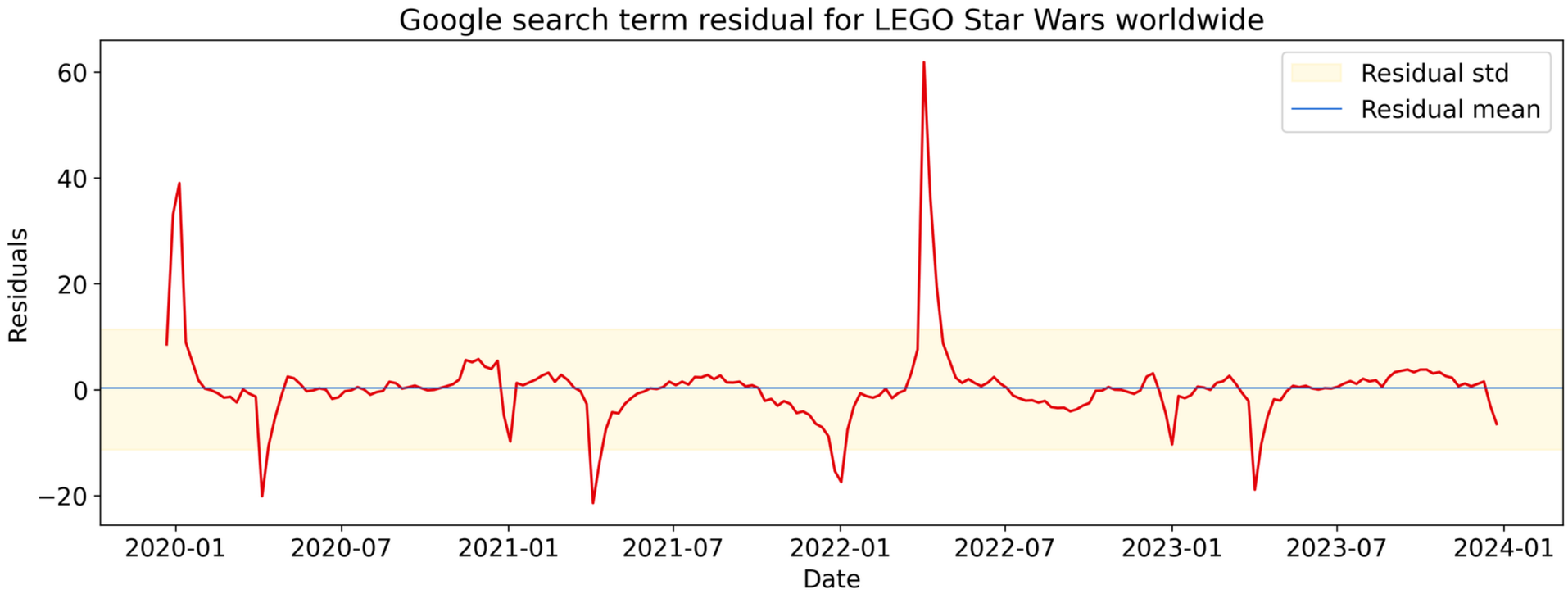
e. Review score

f. Sales history

g. customer group

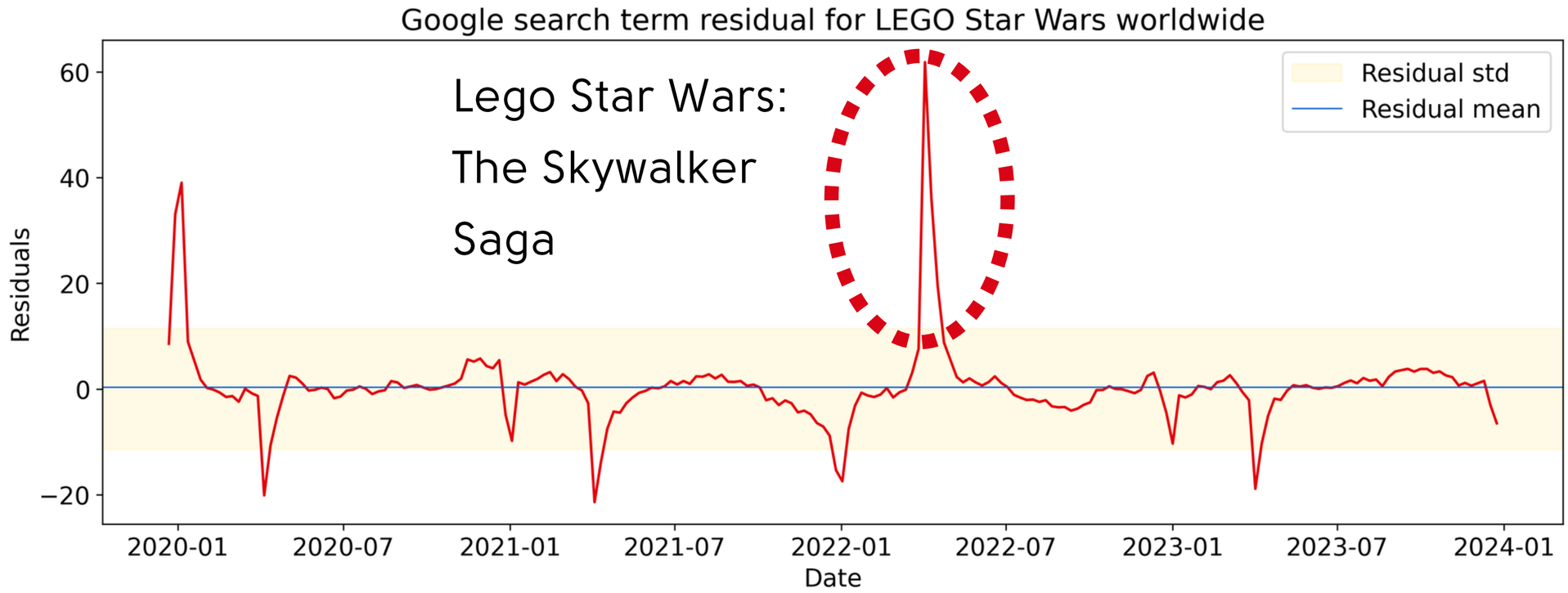
	set_name	prod_id	similarity	num_reviews
629	Jedi Starfighter™ With Hyperdrive	75191	1.000000	15.0
647	The Phantom	75170	0.259550	25.0
610	Yoda's Jedi Starfighter™	75168	0.251890	37.0
597	Y-Wing Starfighter™	75172	0.242695	51.0
593	Poe's X-Wing Fighter™	75102	0.227475	71.0

Trend data



Outlier detection for special search terms

Trend data



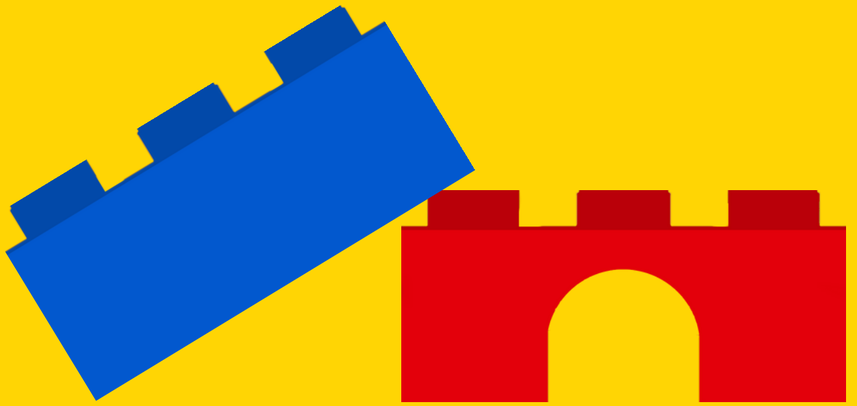
Outlier detection for special search terms

- **Lego and not Lego realted**

AND NOW, DEMO TIME!

THANK YOU

Any questions?



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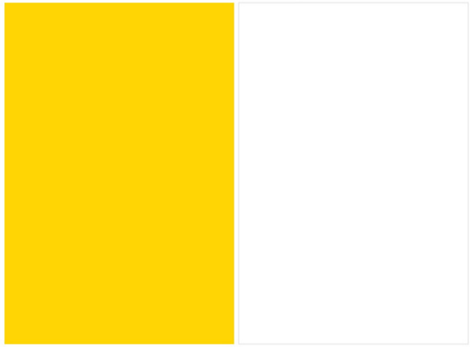
RGB 1, 90, 209

#000000

RGB 0, 0, 0



#FFD504

RGB 255, 213, 4

#FFFFFF

RGB 255, 255, 255