

# RENDER LESS

## CREATING PERFORMANT LAYOUTS

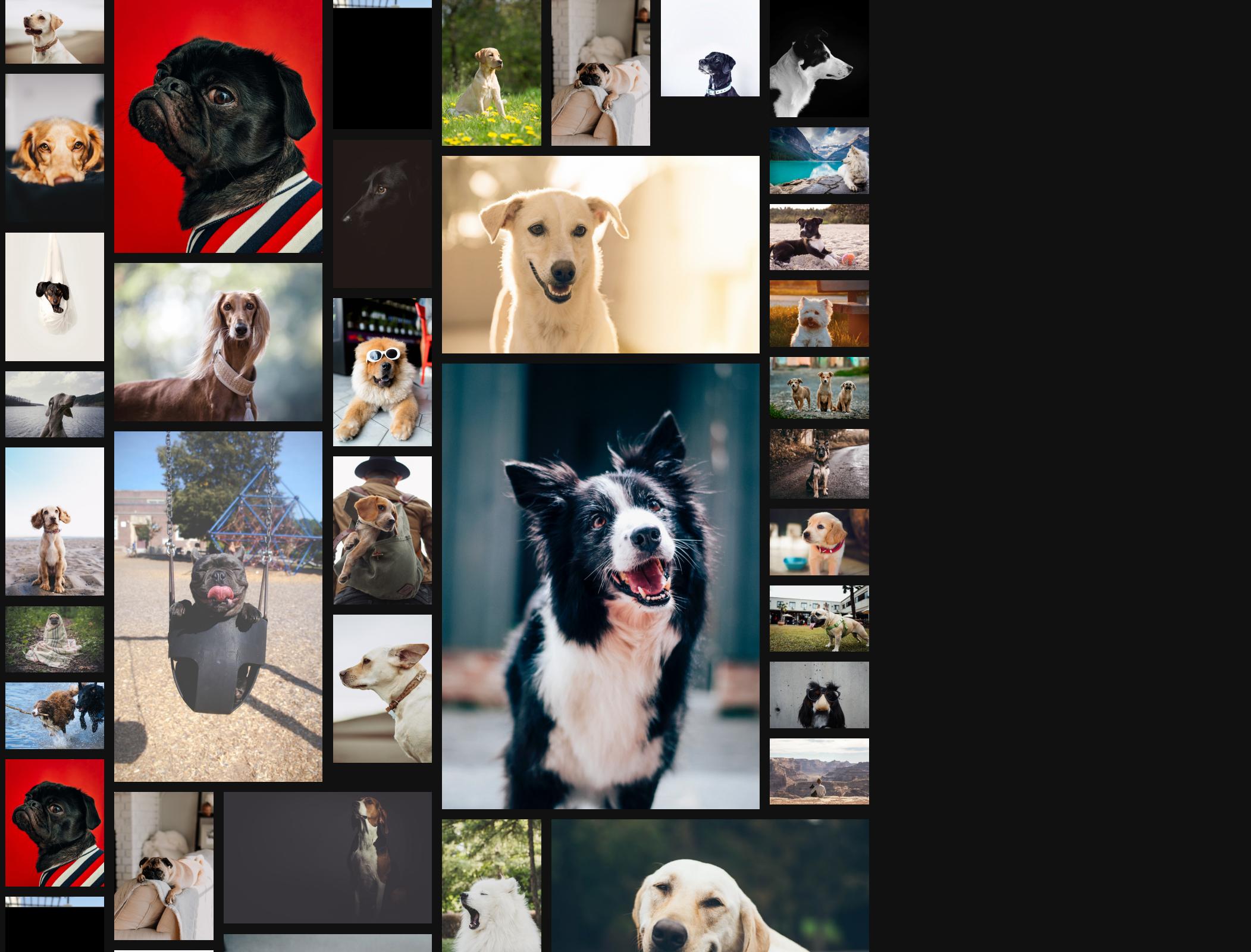
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REACT BOSTON 2018 - COLE TURNER



**@coleturner**

- Acquisition UI @ Netflix
- Previously PayPal
- Copy pasting since 2004





## Aw, Snap!

Something went wrong while displaying this webpage.

[Learn more](#)

[Reload](#)

REACT DEVELOPERS WORRY TOO MUCH ABOUT  
**AVOIDING RE-RENDERS**

**BUT NOT ENOUGH ABOUT  
HOW MUCH WE RENDER**

**Things that makes layout slow**

\$50

\$100

\$500

Daily Double

**RENDERING JEOPARDY**

## Things that makes layout slow

DOM mutations



\$100

\$500

Daily Double

# RENDERING JEOPARDY

## Things that makes layout slow

DOM mutations



Style Calculations



\$500

Daily Double

# RENDERING JEOPARDY

## Things that makes layout slow

DOM mutations



Style Calculations



Layout Thrashing



Daily Double

# RENDERING JEOPARDY

## Things that makes layout slow

DOM mutations



Style Calculations



Layout Thrashing

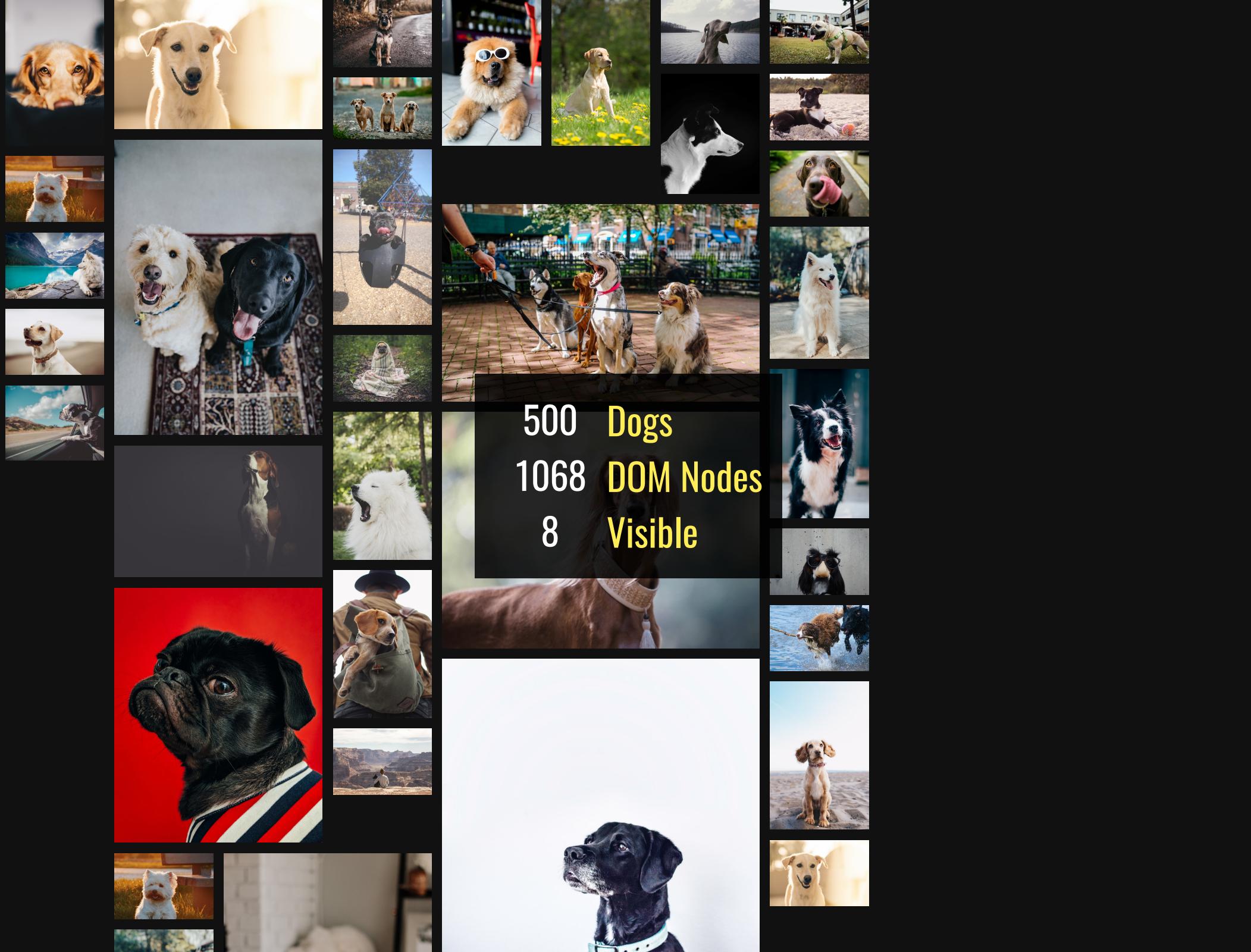


Rendering all the things



# RENDERING JEOPARDY

**500 Dogs  
1068 DOM Nodes  
8 Visible**



# RENDER LESS!

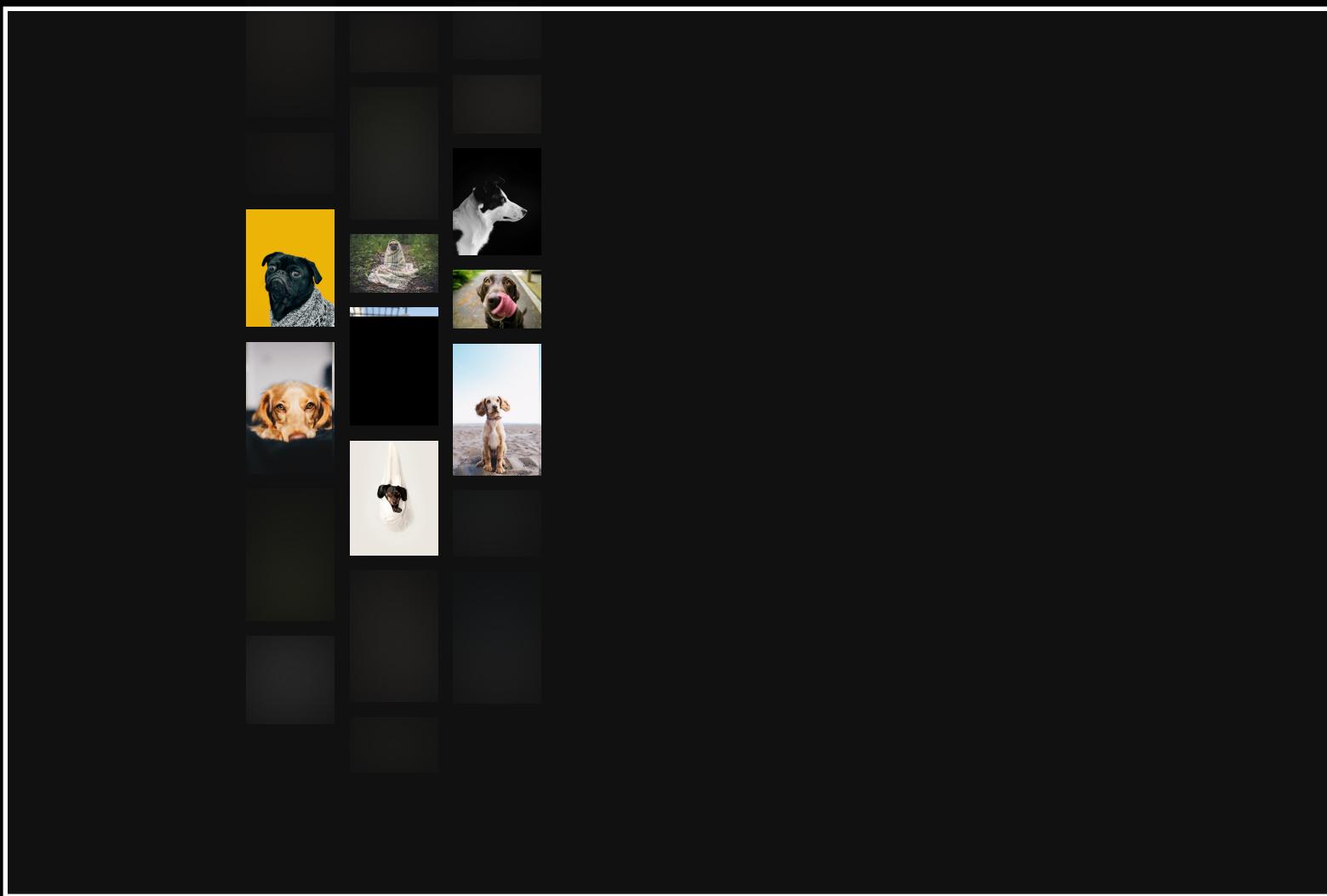


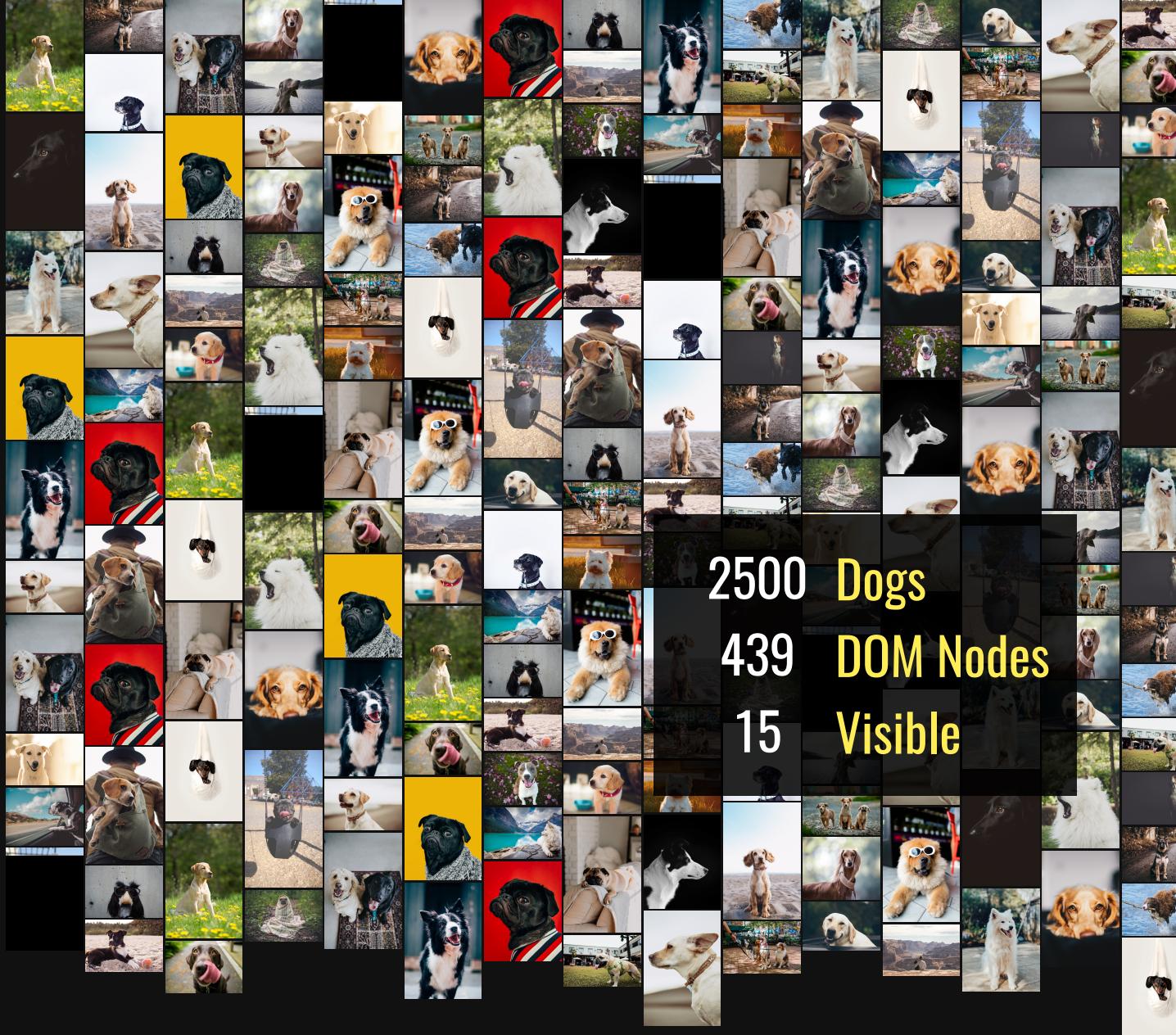
# HOW TO: RENDER LESS

- Rendering the viewport area only
- Minimize style calculations
- Avoiding layout thrashing

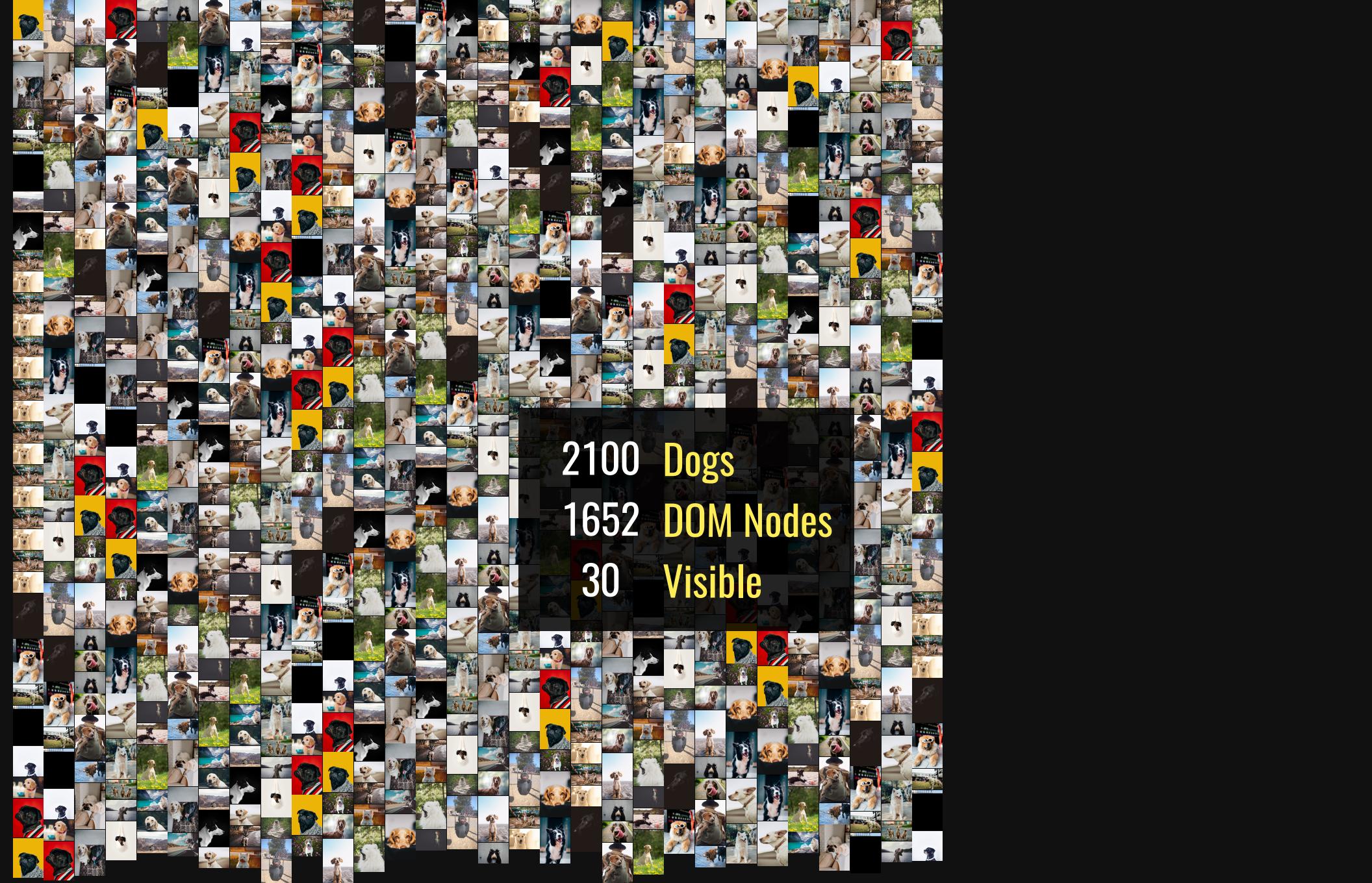
# **VIRTUALIZED RENDERING**

**react-window / react-virtualized**





**2500 Dogs  
439 DOM Nodes  
15 Visible**



**2100 Dogs  
1652 DOM Nodes  
30 Visible**



Render less things, fewer times

Avoid layout thrashing

Test low-end devices

# **THANKS FOR LISTENING!**

## **YOU MIGHT ALSO BE INTERESTED IN:**

- [React Performance Tools](#)
  - [CSS Triggers](#)
  - [Avoid Large Complex Layouts & Layout Thrashing...](#)
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**FOR MORE PICTURES OF DOGS FOLLOW  
@COLETURNER ON TWITTER**