

**brightonSEO.**  
*San Diego*



# JavaScript rendering: Does Google see this?

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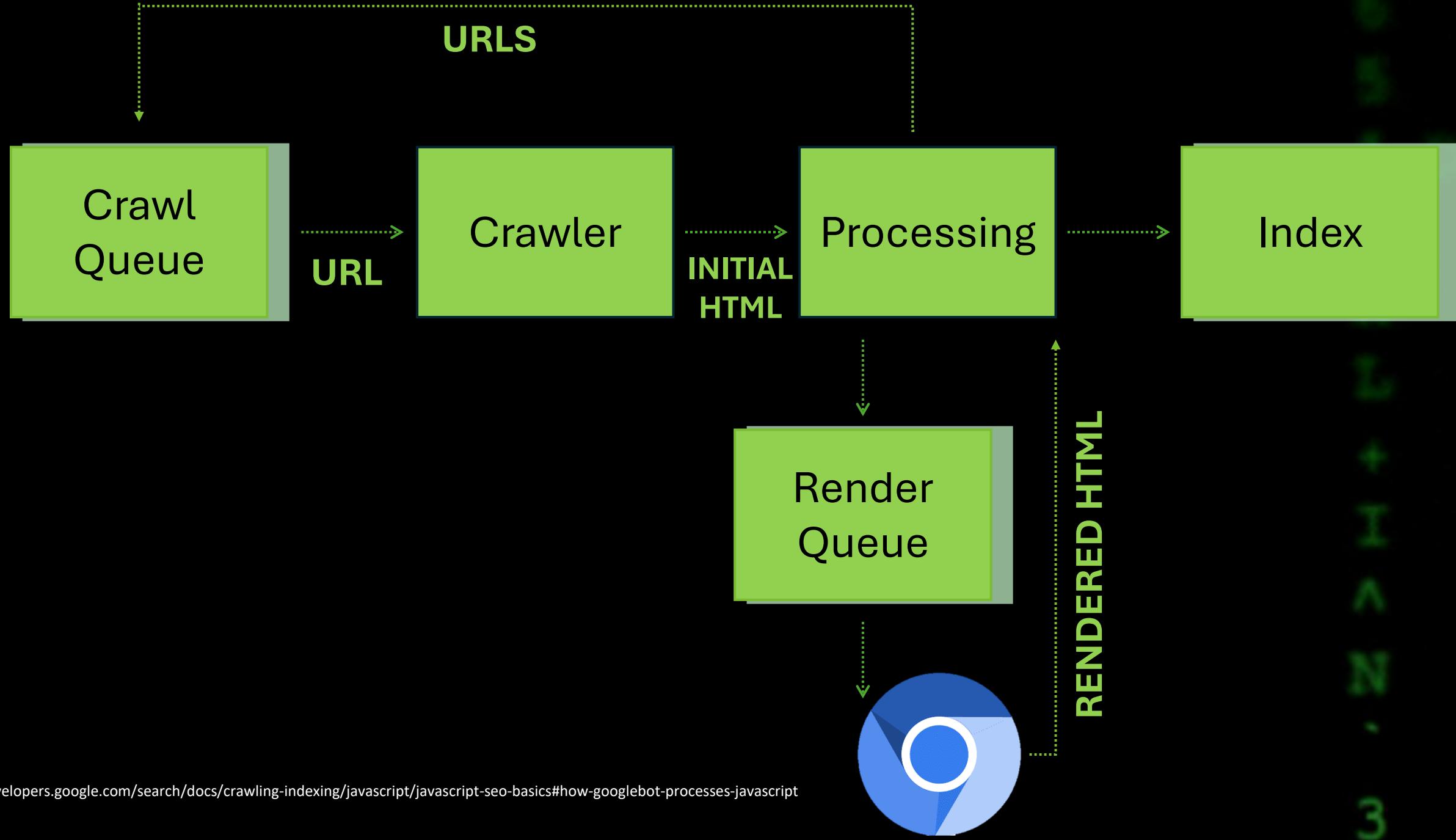
How does Google  
handle rendering?

What issues arise?

What can we do?

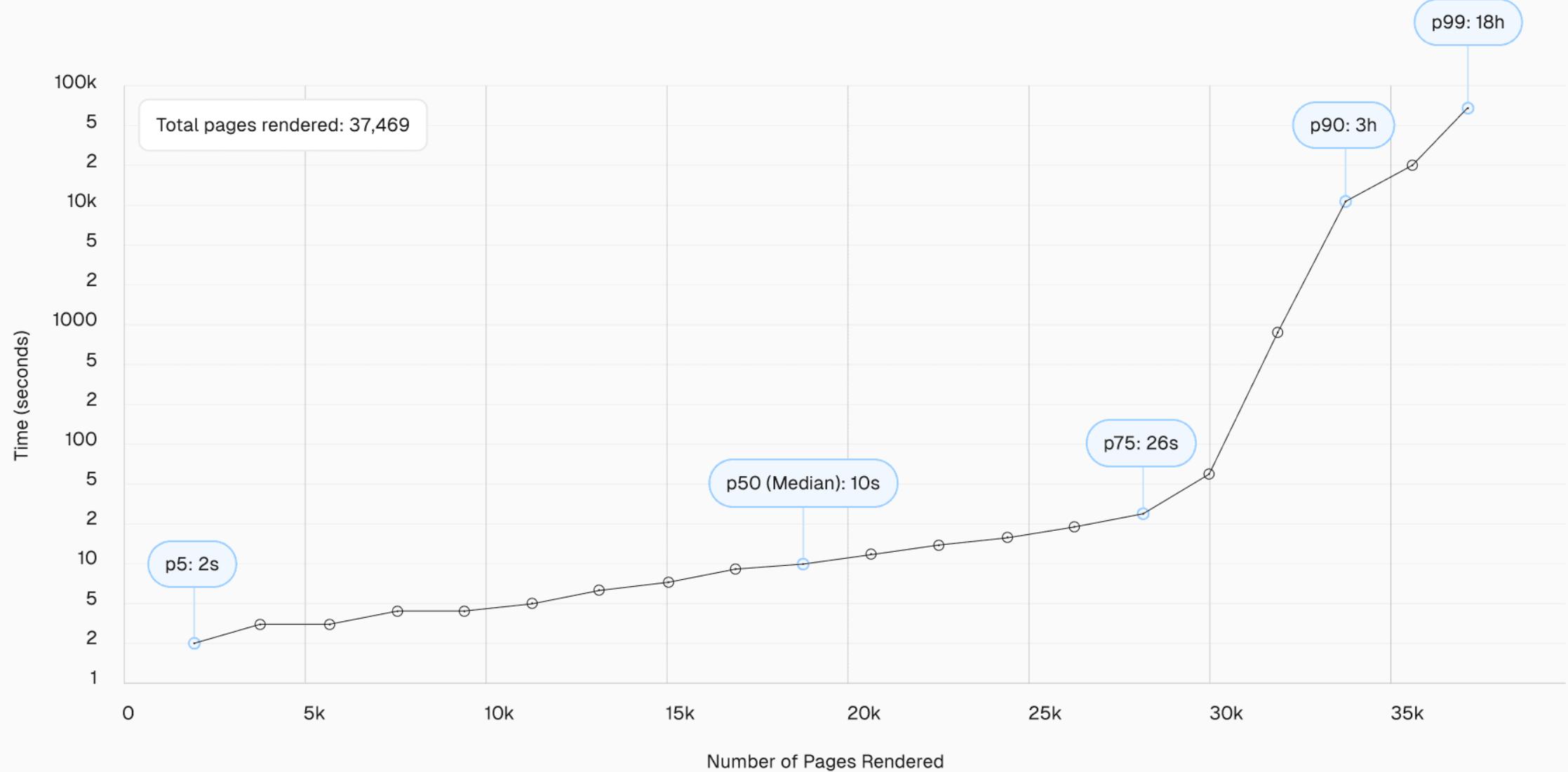
Crawling  
Indexing > Rendering  
Ranking

6 5 1 D  
R H L + I A N . 3



ONE

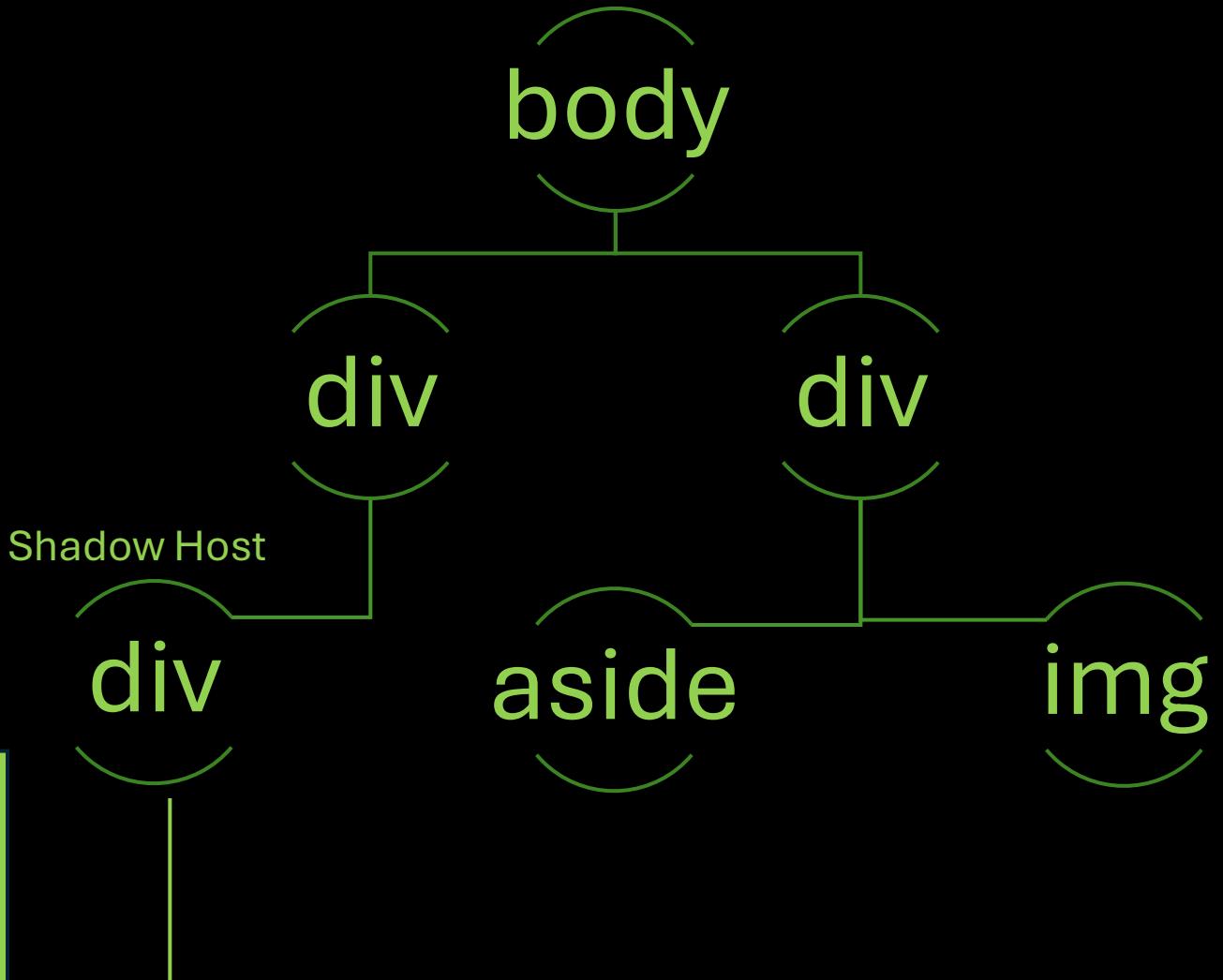
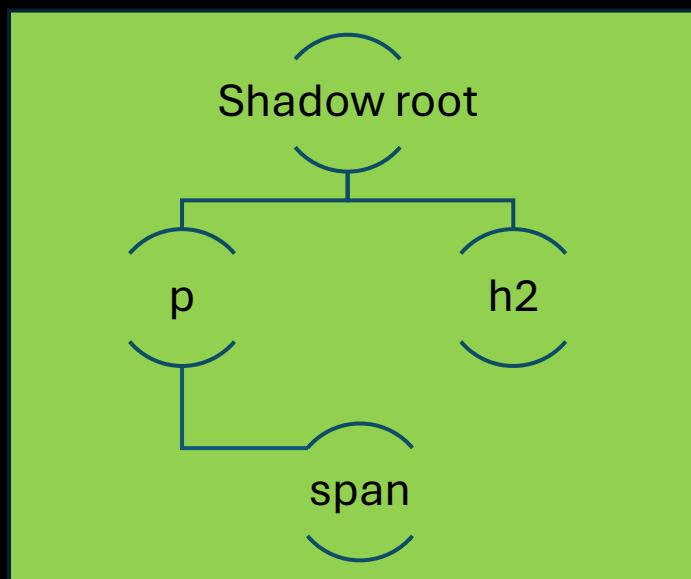
HOUR LATER



A scene from a movie or TV show. A woman with dark hair and bangs, wearing a dark top, looks down at a small, ornate object in a wooden box. A man with a beard and mustache, wearing a brown patterned vest over a white shirt, stands behind her, holding a lit candle. The setting is a dimly lit room with a large, patterned lampshade in the background.

*Don't look, my sweet darling.  
It's too dangerous.*

# Shadow DOM



# Shadow DOM

```
▶ <div data-theme="grey90" class="OuterContainer__Wrapper-page-builder__sc-1ejgywb-0 cIgEay">...
```

```
▶ <div data-theme="grey90" class="OuterContainer__Wrapper-page-builder__sc-1ejgywb-0 cIgEay">...
```

```
</div>
```

```
▶ <div class="Container__StyledContainer-design-system__sc-1l0wzxx-0 fyQTEk">...
```

```
</main>
```

```
<footer id="footer" class="sc-ab6335d1-0 bBSqtr">...
```

```
</div>
```

```
</div>
```

```
▶ <script id="__NEXT_DATA__" type="application/json">...
```

```
<div class="ReactModalPortal"></div> == $0
```

```
<div class="ReactModalPortal"></div>
```

```
<div class="ReactModalPortal"></div>
```

```
<div class="ReactModalPortal"></div>
```

```
▶ <div data-theme="grey90" class="OuterContainer__Wrapper-page-builder__sc-1ejgywb-0 cIgEay">...
```

```
▶ <div data-theme="grey90" class="OuterContainer__Wrapper-page-builder__sc-1ejgywb-0 cIgEay">...
```

```
</div>
```

```
▶ <div class="Container__StyledContainer-design-system__sc-1l0wzxx-0 fyQTEk">...
```

```
</main>
```

```
<footer id="footer" class="sc-ab6335d1-0 bBSqtr">...
```

```
</div>
```

```
</div>
```

```
▶ <script id="__NEXT_DATA__" type="application/json">...
```

```
<div class="ReactModalPortal"></div>
```

```
▼ <div class="ReactModalPortal">
```

```
... ▶ <div class="ReactModal__Overlay ReactModal__Overlay--after-open" style="position: fixed; inset: 0px; background-color: rgba(0, 0, 0, 0.75); height: 100%; padding: 0px; z-index: 99999;">...
```

```
</div>
```

```
<div class="ReactModalPortal"></div>
```

```
<div class="ReactModalPortal"></div>
```



ONCE WORD LEAKS OUT THAT A  
PIRATE HAS GONE SOFT...

# Soft 404

The screenshot shows a web browser window for the Kroger website. The URL in the address bar is `https://www.kroger.com/atlases/v1/savings-copons/v1/cohons?projections=coupons.com&filter.status=unclipped&page.size=24&page.offset=0`. The page displays a "All Coupons" section with a placeholder icon and the message "We're not finding any coupons right now, please try again later." To the right of the page, the Chrome Network tab is open, showing a list of requests. One request, "coupons?projections=coupons", is highlighted with a red border. The Headers section shows the following:

Name	Value
Request URL	<code>https://www.kroger.com/atlases/v1/savings-copons/v1/cohons?projections=coupons.com&amp;filter.status=unclipped&amp;page.size=24&amp;page.offset=0</code>
Referrer Policy	strict-origin-when-cross-origin
Accept	application/json, text/plain, */*
Device-Memory	8
Referer	<code>https://www.kroger.com/savings/cl/coupons/</code>
Sec-Ch-Ua	"Google Chrome";v="120"

A warning message at the bottom of the Headers section states: "⚠ Provisional headers are shown. Learn more".

# Soft 404

X Tested page

HTML SCREENSHOT MORE INFO

Page resources ≡  
3/163 couldn't be loaded

⚠ Other error Script  
<https://geolocation.onetrust.com/cookieconsentpub/v1/geo/location>

⚠ Googlebot blocked by robots.txt XHR  
[https://sentry.io/api/131249/envelope/?sentry\\_key=32e4861491de4e0cb13244c120832580&sentry\\_version=7&sentry\\_client=sentry.javascript.react%2F7.22.0](https://sentry.io/api/131249/envelope/?sentry_key=32e4861491de4e0cb13244c120832580&sentry_version=7&sentry_client=sentry.javascript.react%2F7.22.0)

⚠ Other error Media  
<https://videos.ctfassets.net/7vk8puwnesgc/75b0ZzdTywAnl6AsBSw0fc/4534319db3b8161271d4617d09ebda85/06-video-rebecca.mp4>

# noindex

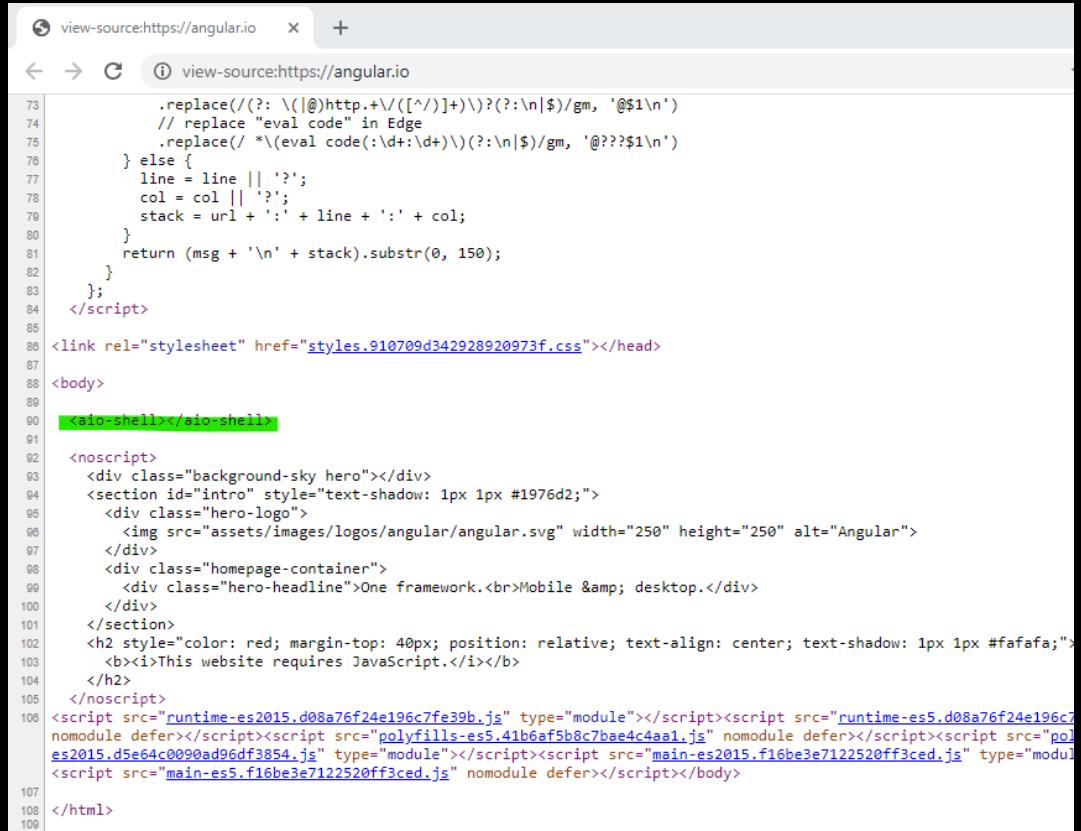
```
<!DOCTYPE html>
<html><head>
<meta name="robots" content="noindex">
(...)
```





# 2020 State of JavaScript

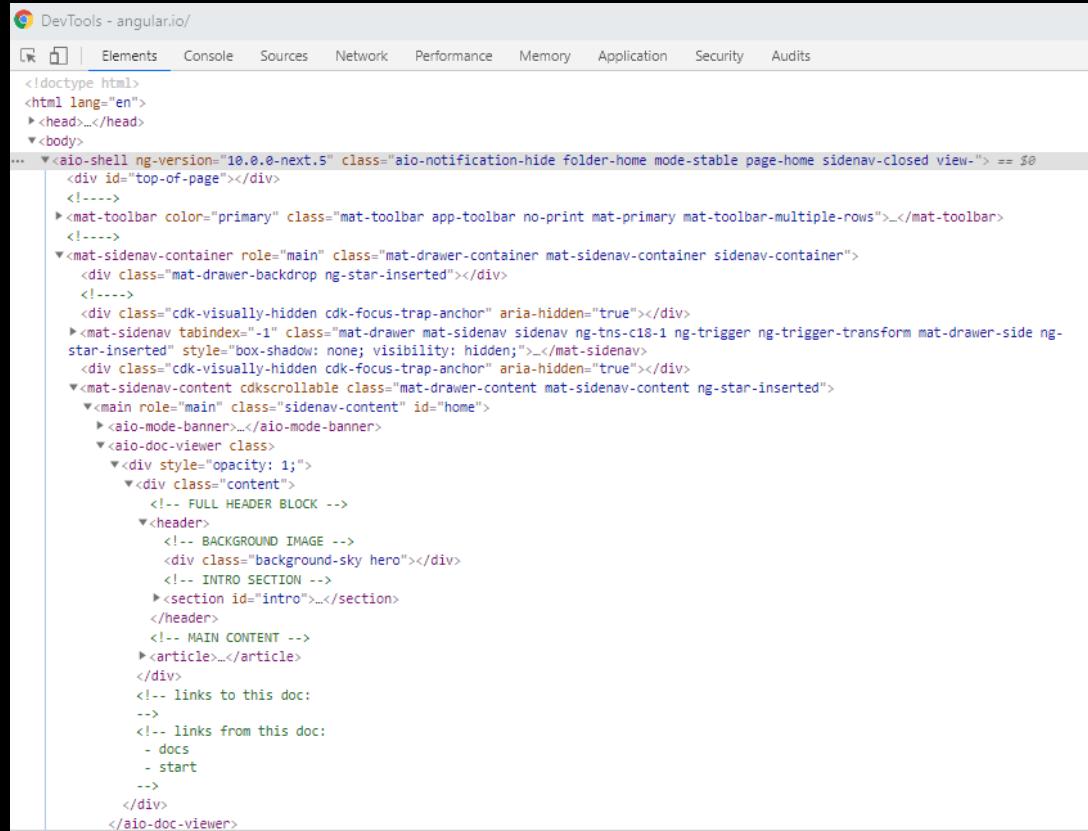
Server-Side Initial HTML



A screenshot of a browser developer tools window titled "view-source:https://angular.io". The content area shows the raw HTML code of the page. The code includes script tags for Angular's runtime and polyfills, and a noscript block containing an image and a message about JavaScript requirements. The code is color-coded with syntax highlighting.

```
73     .replace(/(?:\|@http.+\/([^\n]+)\|)?(?:\n$)/gm, '$1\n')
74     // replace "eval code" in Edge
75     .replace(/ *\\(eval code(:d+:\d+)\\)(?:\n$)/gm, '@??$1\n')
76   } else {
77     line = line || '?';
78     col = col || '?';
79     stack = url + ':' + line + ':' + col;
80   }
81   return (msg + '\n' + stack).substr(0, 150);
82 }
83 </script>
84 <link rel="stylesheet" href="styles.910709d342928920973f.css"></head>
85 <body>
86   <aio-shell></aio-shell>
87   <noscript>
88     <div class="background-sky hero"></div>
89     <section id="intro" style="text-shadow: 1px 1px #1976d2;">
90       <div class="hero-logo">
91         
92       </div>
93       <div class="homepage-container">
94         <div class="hero-headline">One framework.<br>Mobile & desktop.</div>
95       </div>
96     </section>
97     <h2 style="color: red; margin-top: 40px; position: relative; text-align: center; text-shadow: 1px 1px #fafafa;">
98       <b><i>This website requires JavaScript.</i></b>
99     </h2>
100   </noscript>
101 <script src="runtime-es2015.d08a76f24e196c7fe39b.js" type="module"></script><script src="runtime-es5.d08a76f24e196c7nomodule defer"></script><script src="polyfills-es5.41b6af5b8c7bae4c4aa1.js" nomodule defer></script><script src="polys2015.d5e64c009bad96df3854.js" type="module"></script><script src="main-es2015.f16be3e7122520ff3ced.js" type="module"><script src="main-es5.f16be3e7122520ff3ced.js" nomodule defer></script></body>
102 </html>
103
104
105
106
107
108
109
```

Rendered HTML



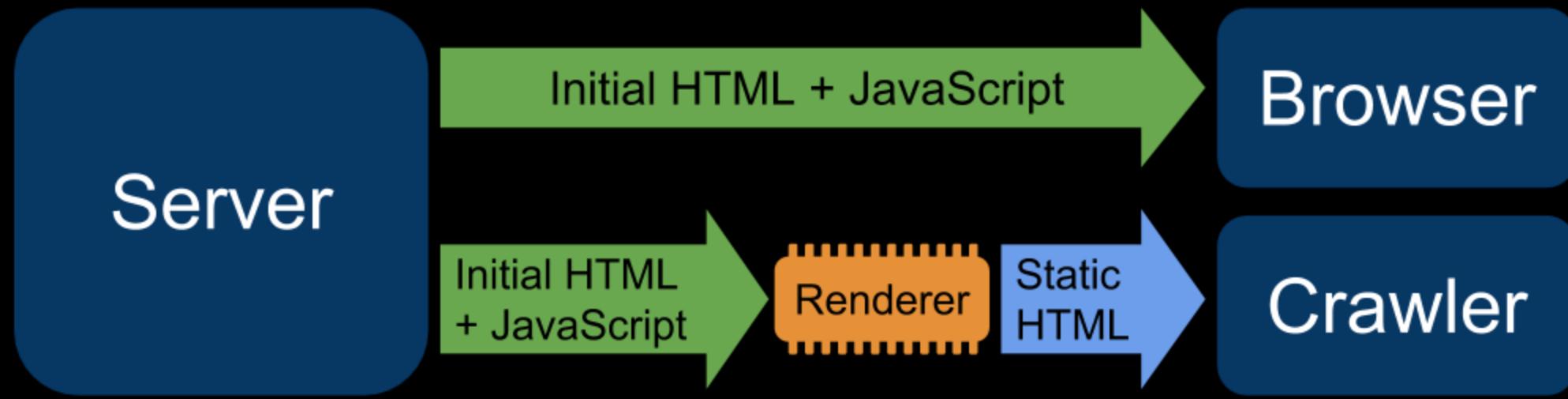
A screenshot of a browser developer tools window titled "DevTools - angular.io/". The content area shows the rendered HTML structure. It features a header with a toolbar and a sidebar, followed by a main content area with sections like "INTRO SECTION" and "MAIN CONTENT". The rendered HTML is highly nested and includes Angular-specific components like "mat-toolbar", "mat-sidenav", and "cdk-visually-hidden". The code is color-coded with syntax highlighting.

```
<!DOCTYPE html>
<html lang="en">
  <head></head>
  <body>
    <aio-shell ng-version="10.0.0-next.5" class="aio-notification-hide folder-home mode-stable page-home sidenav-closed view-> == $0
      <div id="top-of-page"></div>
      <!-->
      <mat-toolbar color="primary" class="mat-toolbar app-toolbar no-print mat-primary mat-toolbar-multiple-rows">...</mat-toolbar>
      <!-->
      <mat-sidenav-container role="main" class="mat-drawer-container mat-sidenav-container sidenav-container">
        <div class="mat-drawer-backdrop ng-star-inserted"></div>
        <!-->
        <div class="cdk-visually-hidden cdk-focus-trap-anchor" aria-hidden="true"></div>
        <mat-sidenav tabindex="-1" class="mat-drawer mat-sidenav sidenav ng-tns-c18-1 ng-trigger ng-trigger-transform mat-drawer-side ng-star-inserted" style="box-shadow: none; visibility: hidden;">...</mat-sidenav>
        <div class="cdk-visually-hidden cdk-focus-trap-anchor" aria-hidden="true"></div>
        <mat-sidenav-content cdkscrollable class="mat-drawer-content mat-sidenav-content ng-star-inserted">
          <main role="main" class="sidenav-content" id="home">
            <aio-mode-banner>...</aio-mode-banner>
            <aio-doc-viewer class=">
              <div style="opacity: 1;">
                <div class="content">
                  <!-- FULL HEADER BLOCK -->
                  <header>
                    <!-- BACKGROUND IMAGE -->
                    <div class="background-sky hero"></div>
                    <!-- INTRO SECTION -->
                    <section id="intro">...</section>
                  </header>
                  <!-- MAIN CONTENT -->
                  <article>...</article>
                </div>
                <!-- links to this doc:
                -->
                <!-- links from this doc:
                  - docs
                  - start
                -->
              </div>
            </aio-doc-viewer>
```



Bridging the gap  
with dynamic  
rendering

# 2020 State of JavaScript: Dynamic Rendering



⚠️ Dynamic rendering was a workaround and not a long-term solution for problems with JavaScript-generated content in search engines. Instead, we recommend that you use [server-side rendering](#), [static rendering](#), or [hydration](#) as a solution.



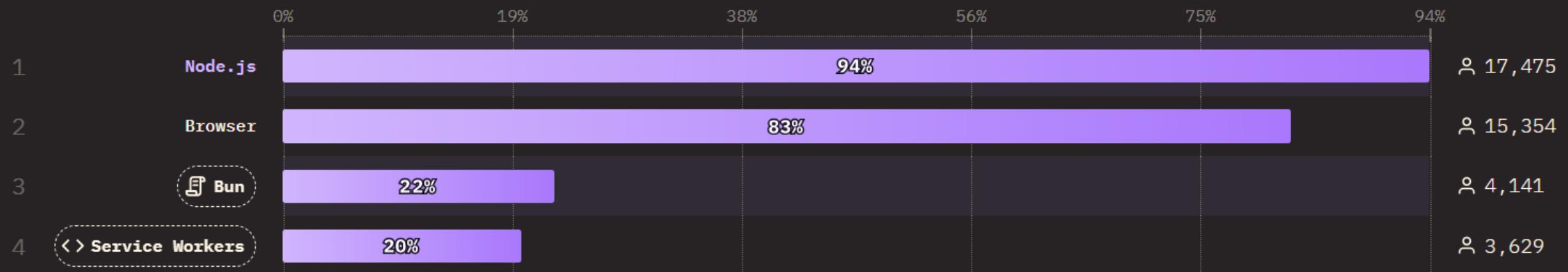
**THE FUTURE IS NOW!**

# 2024 State of JavaScript

## JAVASCRIPT RUNTIMES

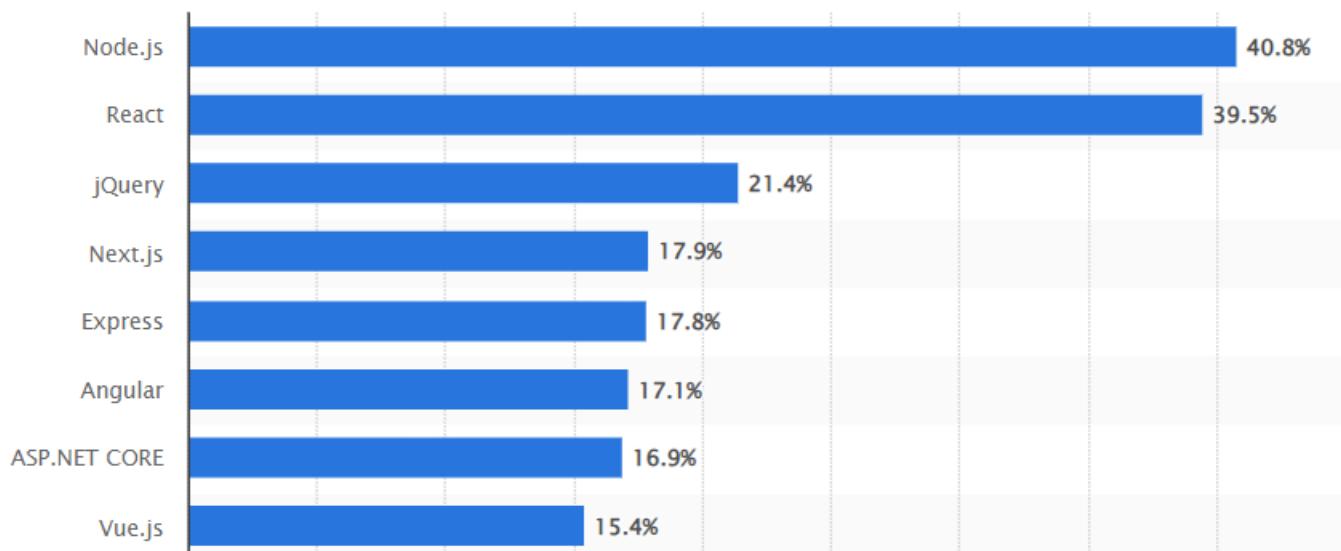
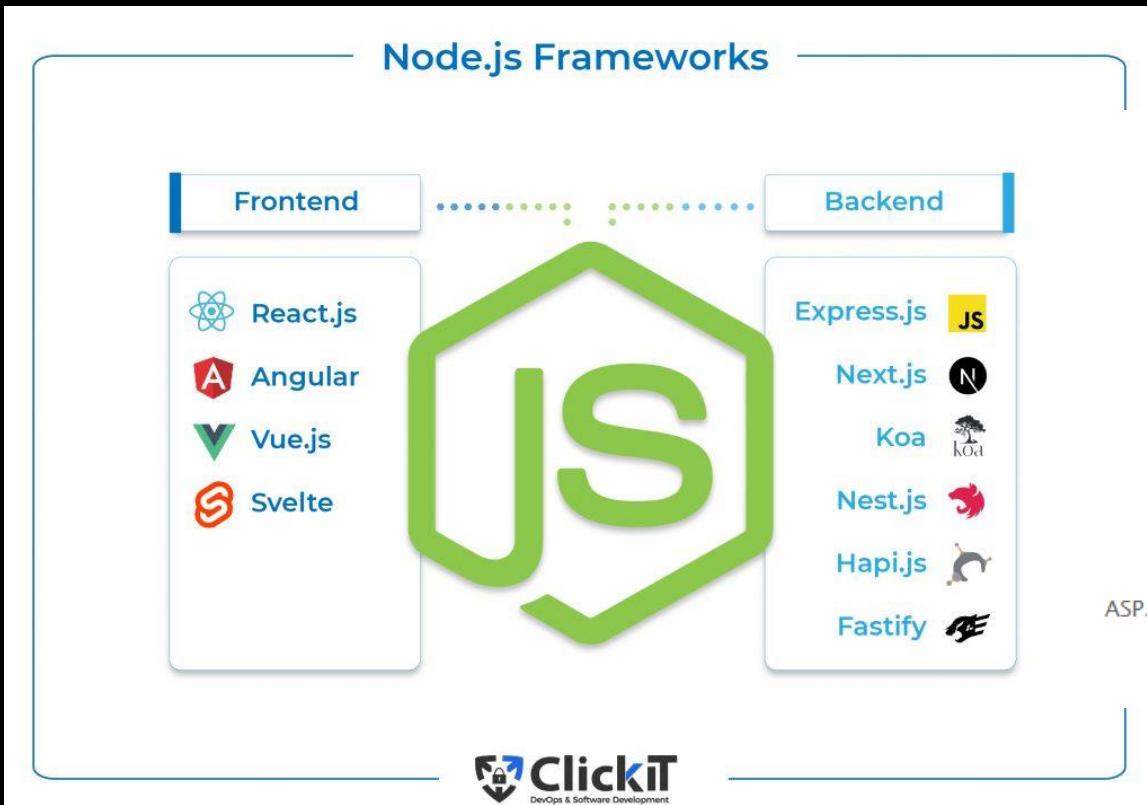
All Respondents

Add Filters...



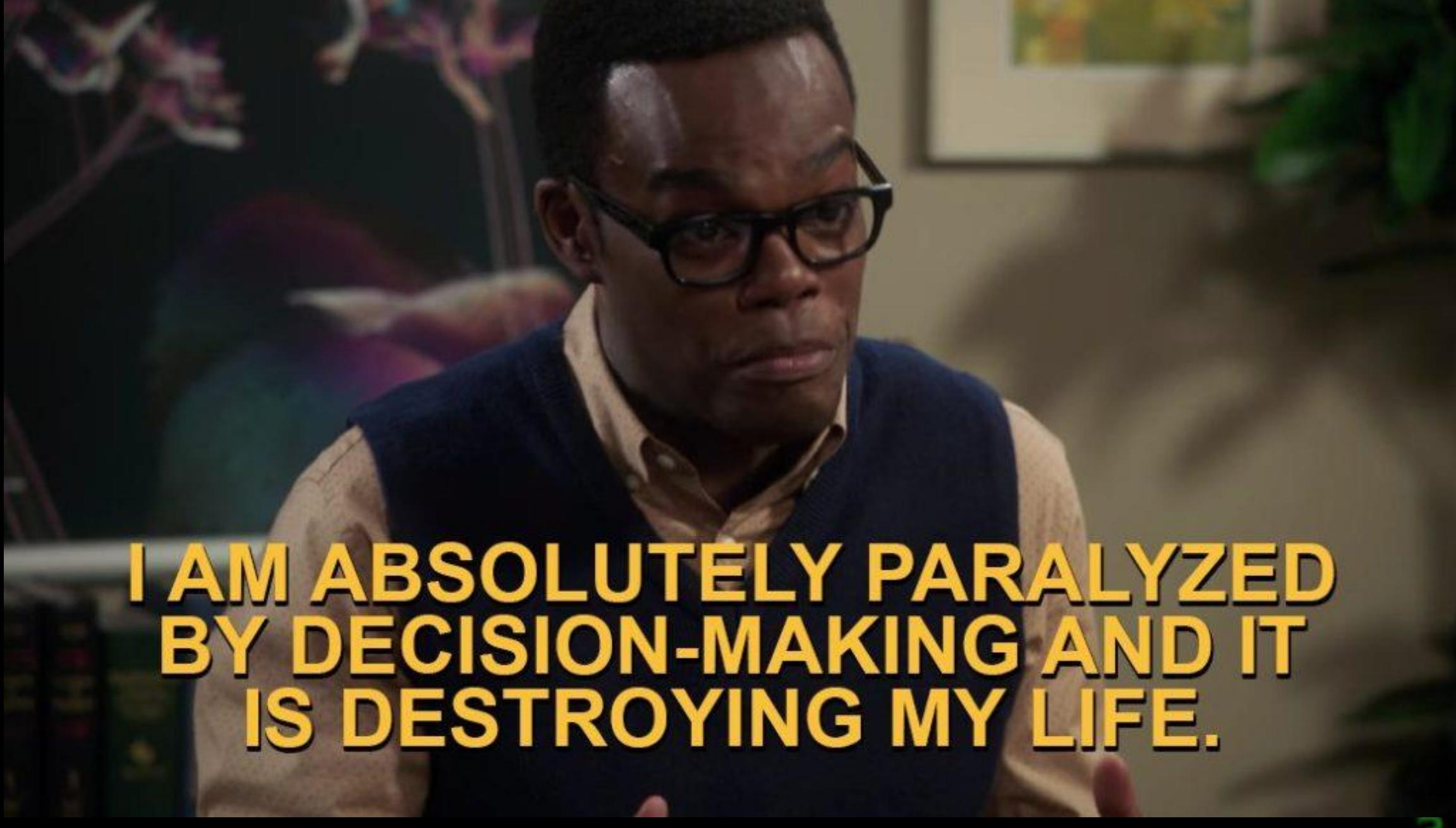
<https://2023.stateofjs.com/en-US/other-tools/#runtimes>

# 2024 State of JS: node frameworks



<https://www.clickitech.com/developer/nodejs-frameworks/>

<https://www.statista.com/statistics/1124699/worldwide-developer-survey-most-used-frameworks-web/>

A close-up photograph of a Black man wearing black-rimmed glasses and a dark blue vest over a patterned shirt. He has a serious, contemplative expression, looking slightly downwards and to his left. The background is blurred, showing indoor plants and a painting.

**I AM ABSOLUTELY PARALYZED  
BY DECISION-MAKING AND IT  
IS DESTROYING MY LIFE.**

# Server-Side Rendering

- Generated when requested
- No caching
- Latest content
- Longer TTFB
- Necessary for frequently updated pages, like feeds

# Static Site Generation (SSG)

- Generated at build
- Cached
- Requires rebuilding to update
- Fast TTFB
- Perfect for non-dynamic content, like archived blog pages or company pages not regularly updated



MAYBE YOU COULD  
ASK FOR MORE

*Fallout*

# Incremental Static Regeneration

- Generated at build, on revalidation, or on demand
- Cached
- Revalidates after set time or now on-demand per page
- Available on Next, SvelteKit, Nuxt
  - Or via a CDN with Remix
- Great for large sites

⑥ @danielle\_rohe

X @d4ni\_s

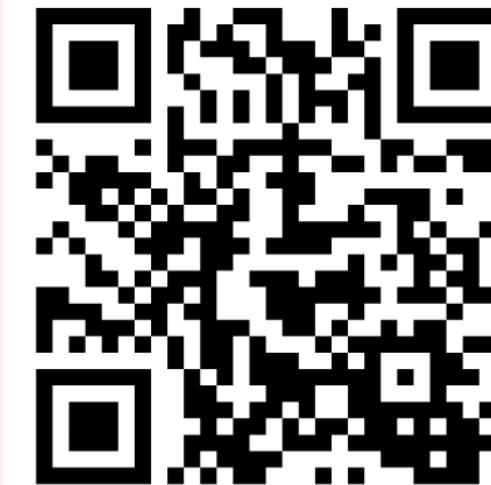


I drink, and I know things.



://WOMEN IN  
TECH SEO/

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