







## Performance

Metrics			=
First Contentful Paint	2.3 s	Time to Interactive	3.7 s
Speed Index	2.3 s	▲ Total Blocking Time	670 ms
▲ Largest Contentful Paint	4.4 s	Cumulative Layout Shift	0

Values are estimated and may vary. The performance score is calculated directly from these metrics. See calculator.

### View Trace



Opportunities — These suggestions can help your page load faster. They don't directly affect the Performance score.

Opportunity **Estimated Savings** 

Eliminate render-blocking resources

Resources are blocking the first paint of your page. Consider delivering critical JS/CSS inline and deferring all non-critical JS/styles. Learn more.

✓ Show 3rd-party resources (2)

URL	Transfer Size	Potential Savings
/css?family=Roboto:300,400,500&display=swap (fonts.googleapis.com)	1.2 KB	800 ms
/icon?family=Material+Icons (fonts.googleapis.com)	0.4 KB	800 ms

1.49 s ^

URL	Transfer Size	Potential Savings
/Sapient-spaceX/styles.5990681css (abhinavsyal.gith	ub.io) 31.3 KB	600 ms
▲ Remove unused JavaScript		0.9 s ^
Remove unused JavaScript to reduce bytes consumed by	y network activity. <u>Learn more</u> .	
	Show 3rd-party	resources (0)
URL	Transfer Size	Potential Savings
/Sapient-spaceX/main.1f68e12js (abhinavsyal.github.i	o) 134.2 KB	76.3 KB
/Sapient-spaceX/polyfills.a4021dejs (abhinavsyal.gith	ub.io) 12.7 KB	3 KB
Remove unused CSS		0.15 s ^
Remove dead rules from stylesheets and defer the loadi unnecessary bytes consumed by network activity. Learn		е
	Show 3rd party	resources (0)
URL	Transfer Size	Potential Savings
/Sapient-spaceX/styles.5990681css (abhinavsyal.gith	ub.io) 31.3 KB	30.8 KB
	your application. These numbers don't <u>directly affect</u> the	e
Performance score.	esources found	^
Performance score.  A Serve static assets with an efficient cache policy — 4 re	esources found	^
Performance score.  A Serve static assets with an efficient cache policy — 4 re	esources found page. <u>Learn more</u> .	reseurces (0)
Performance score.  Serve static assets with an efficient cache policy — 4 re  A long cache lifetime can speed up repeat visits to your	esources found  page. <u>Learn more</u> .  Show 3rd party  Cache TTL	reseurces (0)
Performance score.  Serve static assets with an efficient cache policy — 4 re  A long cache lifetime can speed up repeat visits to your	esources found  page. Learn more.  Show 3rd party  Cache TTL  10 m	resources (0) Transfer Size
Performance score.  Serve static assets with an efficient cache policy — 4 re A long cache lifetime can speed up repeat visits to your  URL  /Sapient-spaceX/main.1f68e12js (abhinavsyal.github.i	esources found page. Learn more.  Show 3rd party Cache TTL  o) 10 m  ub.io) 10 m	reseurees (0) Transfer Size
Performance score.  Serve static assets with an efficient cache policy — 4 re A long cache lifetime can speed up repeat visits to your  URL  /Sapient-spaceX/main.1f68e12js (abhinavsyal.github.i	Show 3rd party  Cache TTL  o)  10 m  ub.io)  10 m	resources (0) Transfer Size 134 KB 31 KB
Performance score.  Serve static assets with an efficient cache policy — 4 re A long cache lifetime can speed up repeat visits to your  URL  /Sapient-spaceX/main.1f68e12js (abhinavsyal.github.it /Sapient-spaceX/styles.5990681css (abhinavsyal.github.it /Sapient-spaceX/polyfills.a4021dejs (abhinavsyal.github.it	Show 3rd party  Cache TTL  o)  10 m  ub.io)  10 m	resources (0) Transfer Size 134 KB 31 KB 13 KB 1 KB
Performance score.  Serve static assets with an efficient cache policy — 4 re A long cache lifetime can speed up repeat visits to your  URL  /Sapient-spaceX/main.1f68e12js (abhinavsyal.github.i /Sapient-spaceX/styles.5990681css (abhinavsyal.gith /Sapient-spaceX/polyfills.a4021dejs (abhinavsyal.gith /Sapient-spaceX/runtime.e227d1ajs (abhinavsyal.gith	Show 3rd party  Cache TTL  o) 10 m  ub.io) 10 m  ub.io) 10 m  ub.io) 10 m	resources (0) Transfer Size 134 KB 31 KB 13 KB 1 KB
Performance score.  Serve static assets with an efficient cache policy — 4 re A long cache lifetime can speed up repeat visits to your  URL  /Sapient-spaceX/main.1f68e12js (abhinavsyal.github.i /Sapient-spaceX/styles.5990681css (abhinavsyal.gith /Sapient-spaceX/polyfills.a4021dejs (abhinavsyal.gith /Sapient-spaceX/runtime.e227d1ajs (abhinavsyal.gith  Avoid chaining critical requests — 4 chains found  The Critical Request Chains below show you what resouchains, reducing the download size of resources, or defe	Show 3rd party  Cache TTL  o) 10 m  ub.io) 10 m  ub.io) 10 m  ub.io) 10 m	resources (0) Transfer Size 134 KB 31 KB 13 KB 1 KB
URL  /Sapient-spaceX/main.1f68e12js (abhinavsyal.github.i /Sapient-spaceX/styles.5990681css (abhinavsyal.gith /Sapient-spaceX/polyfills.a4021dejs (abhinavsyal.gith /Sapient-spaceX/runtime.e227d1ajs (abhinavsyal.gith /Sapient-spaceX/runtime.e227d1ajs (abhinavsyal.gith Avoid chaining critical requests — 4 chains found The Critical Request Chains below show you what resouchains, reducing the download size of resources, or defected in the control of t	Show 3rd party  Cache TTL  o) 10 m  ub.io) 10 m  ub.io) 10 m  ub.io) 10 m	resources (0) Transfer Size 134 KB 31 KB 13 KB 1 KB

/css?family=Roboto:300,400,500&display=swap (fonts.googleapis.com)

...v20/KFOmCnqEu....woff2 (fonts.gstatic.com) - 60 ms, 11.14 KB

...v20/KFOlCnqEu....woff2 (fonts.gstatic.com) - 60 ms, 21.62 KB

/icon?family=Material+Icons (fonts.googleapis.com) - 120 ms, 0.43 KB

/Sapient-spaceX/styles.5990681....css (abhinavsyal.github.io) - 150 ms, 31.31 KB

User Timing marks and measures — 28 user timings

Consider instrumenting your app with the User Timing API to measure your app's real-world performance during key user experiences. <u>Learn more</u>.

Name	Туре	Start Time	Duration
Zone	Measure	292.44 ms	1.01 ms
Zone:ZoneAwarePromise	Measure	293.71 ms	0.99 ms
Zone:toString	Measure	294.78 ms	0.13 ms
Zone:util	Measure	295.07 ms	0.18 ms
Zone:legacy	Measure	295.27 ms	0.06 ms
Zone:timers	Measure	295.35 ms	0.36 ms
Zone:requestAnimationFrame	Measure	295.71 ms	0.09 ms
Zone:blocking	Measure	295.82 ms	0.12 ms
Zone:EventTarget	Measure	295.97 ms	1.22 ms
Zone:on_property	Measure	297.2 ms	30.77 ms
Zone:customElements	Measure	328.01 ms	0.25 ms
Zone:XHR	Measure	328.29 ms	0.33 ms
Zone:geolocation	Measure	328.63 ms	0.31 ms
Zone:PromiseRejectionEvent	Measure	328.97 ms	0.13 ms
Zone	Mark	292.46 ms	
Zone:ZoneAwarePromise	Mark	293.74 ms	
Zone:toString	Mark	294.8 ms	
Zone:util	Mark	295.08 ms	
Zone:legacy	Mark	295.28 ms	
Zone:timers	Mark	295.35 ms	
Zone:requestAnimationFrame	Mark	295.72 ms	
Zone:blocking	Mark	295.83 ms	
Zone:EventTarget	Mark	295.98 ms	
Zone:on_property	Mark	297.21 ms	
Zone:customElements	Mark	328.03 ms	

Name	Туре	Start Time Durat
Zone:XHR	Mark	328.3 ms
Zone:geolocation	Mark	328.65 ms
Zone:PromiseRejectionEvent	Mark	328.98 ms
Keep request counts low and transfer sizes small —	- 10 requests • 214 KB	
To set budgets for the quantity and size of page reso	ources, add a budget.json file. <u>Learn mo</u>	<u>re</u> .
Resource Type	Requests	Transfer S
Total	10	214.4 k
Script	3	147.8 k
Stylesheet	3	33 k
Font	2	32.8 k
Document	1	0.9 k
Image	0	0 H
Media	0	0 F
Other	1	0 F
Third-party	5	34.4 k
Largest Contentful Paint element — 1 element four	nd	
This is the element that was identified as the Larges	t Contentful Paint. <u>Learn More</u>	
Element		
div.filter-heading		
Avoid large layout shifts — 1 element found		
These DOM elements contribute most to the CLS of	the nega	
These Down elements contribute most to the GLS of	trie page.	
	те раде.	
	ше раде.	
Element body.mat-typography	ше раде.	
Element body.mat-typography sed audits (21)	ше раде.	
Element body.mat-typography sed audits (21) Properly size images		n more.
Element  body.mat-typography  sed audits (21)  Properly size images  Serve images that are appropriately-sized to save ce		n more.
Element	ellular data and improve load time. <u>Lear</u>	

Minify CSS	^
Minifying CSS files can reduce network payload sizes. <u>Learn more</u> .	
Minify JavaScript	^
Minifying JavaScript files can reduce payload sizes and script parse time. Learn more.	
Efficiently encode images	^
Optimized images load faster and consume less cellular data. <u>Learn more</u> .	
Serve images in next-gen formats	^
Image formats like JPEG 2000, JPEG XR, and WebP often provide better compression than PNG or faster downloads and less data consumption. <u>Learn more</u> .	JPEG, which means
Enable text compression	^
Text-based resources should be served with compression (gzip, deflate or brotli) to minimize total nemore.	twork bytes. <u>Learn</u>
Preconnect to required origins	^
Consider adding `preconnect` or `dns-prefetch` resource hints to establish early connections to impo <a href="Learn more">Learn more</a> .	rtant third-party origins.
Initial server response time was short — Root document took 50 ms	^
Keep the server response time for the main document short because all other requests depend on it.	<u>Learn more</u> .
Avoid multiple page redirects	^
Redirects introduce additional delays before the page can be loaded. <u>Learn more</u> .	
Preload key requests	^
Consider using ` <link rel="preload"/> ` to prioritize fetching resources that are currently requested later i more.	n page load. <u>Learn</u>
Use video formats for animated content	^
Large GIFs are inefficient for delivering animated content. Consider using MPEG4/WebM videos for a PNG/WebP for static images instead of GIF to save network bytes. <u>Learn more</u>	animations and
Avoids enormous network payloads — Total size was 214 KB	^
Large network payloads cost users real money and are highly correlated with long load times. Learn	more.
✓ Show	v 3rd-party resources (4)
URL	Transfer Size
/Sapient-spaceX/main.1f68e12js (abhinavsyal.github.io)	134.2 KB
/Sapient-spaceX/styles.5990681css (abhinavsyal.github.io)	31.3 KB
v20/KFOlCnqEuwoff2 (fonts.gstatic.com)	21.6 KB
/Sapient-spaceX/polyfills.a4021dejs (abhinavsyal.github.io)	12.7 KB
v20/KFOmCnqEuwoff2 (fonts.gstatic.com)	11.1 KB

URL			Transfer Size
/css?family=Roboto:300,400,500&display=swap (fonts.googleapis.co	om)		1.2 KB
/Sapient-spaceX/runtime.e227d1ajs (abhinavsyal.github.io)			0.9 KB
/Sapient-spaceX/ (abhinavsyal.github.io)			0.9 KB
/icon?family=Material+Icons (fonts.googleapis.com)			0.4 KB
Avoids an excessive DOM size — 79 elements			^
A large DOM will increase memory usage, cause longer style calculated and style calculated are style calculated as a style calculate	ations, and produce c	ostly <u>layout reflows</u> . <u>L</u>	<u>earn more</u> .
Statistic Element			Value
Total DOM Elements			79
Maximum DOM Depth <input _ngcontent-serverapp-c43="" type="&lt;br"/> check-input">	"checkbox" autocompl	ete="off" class="form	1- 10
Maximum Child	ut="row wrap" fxlayou	tgap="20px"	15
JavaScript execution time — 0.9 s			^
Consider reducing the time spent parsing, compiling, and executing with this. <u>Learn more</u> .	JS. You may find deli	vering smaller JS payl	oads helps
		Show 3rd party	resources (0)
URL	Total CPU Time	Script Evaluation	Script Parse
/Sapient-spaceX/polyfills.a4021dejs (abhinavsyal.github.io)	773 ms	704 ms	4 ms
Unattributable	360 ms	8 ms	1 ms
/Sapient-spaceX/ (abhinavsyal.github.io)	245 ms	4 ms	2 ms
/Sapient-spaceX/main.1f68e12js (abhinavsyal.github.io)	200 ms	133 ms	45 ms
/Sapient-spaceX/styles.5990681css (abhinavsyal.github.io)	79 ms	0 ms	0 ms
Minimizes main-thread work — 1.7 s			^
Consider reducing the time spent parsing, compiling and executing with this. <u>Learn more</u>	JS. You may find deliv	vering smaller JS paylo	oads helps
Category			Time Spent
Script Evaluation			854 ms
Other			477 ms
Style & Layout			137 ms
Parse HTML & CSS			113 ms
Script Parsing & Compilation			
Ochper arsing & Compliation			56 ms

Category Time Spent

Rendering 23 ms

All text remains visible during webfont loads

elements. Learn more.

Leverage the font-display CSS feature to ensure text is user-visible while webfonts are loading. Learn more.

Minimize third-party usage — Third-party code blocked the main thread for 0 ms

Third-party code can significantly impact load performance. Limit the number of redundant third-party providers and try to load third-party code after your page has primarily finished loading. <u>Learn more</u>.

Third-Party	Transfer Size	Main-Thread Blocking Time
Google Fonts	34 KB	0 ms
Uses HTTP/2 for its own resour	rces	^
HTTP/2 offers many benefits ov	ver HTTP/1.1, including binary headers, multiplexing,	and server push. <u>Learn more</u> .
Uses passive listeners to impro	ove scrolling performance	^
Consider marking your touch a	nd wheel event listeners as `passive` to improve your	page's scroll performance. <u>Learn more</u> .
Avoids document.write()		^
For users on slow connections, seconds. <u>Learn more</u> .	, external scripts dynamically injected via `document.w	rite()` can delay page load by tens of



# Accessibility

These checks highlight opportunities to improve the accessibility of your web app. Only a subset of accessibility issues can be automatically detected so manual testing is also encouraged.

Additional items to manually check (10) — These items address areas which an automated testing tool cannot cover. Learn ^ more in our guide on conducting an accessibility review.

The page has a logical tab order

Tabbing through the page follows the visual layout. Users cannot focus elements that are offscreen. Learn more.

Interactive controls are keyboard focusable

Custom interactive controls are keyboard focusable and display a focus indicator. Learn more.

Interactive elements indicate their purpose and state

Interactive elements, such as links and buttons, should indicate their state and be distinguishable from non-interactive

The user's focus is directed to new content added to the page	^
If new content, such as a dialog, is added to the page, the user's focus is directed to it. <u>Learn more</u> .	
User focus is not accidentally trapped in a region	^
A user can tab into and out of any control or region without accidentally trapping their focus. <u>Learn more</u> .	
Custom controls have associated labels	^
Custom interactive controls have associated labels, provided by aria-label or aria-labelledby. <u>Learn more</u> .	
Custom controls have ARIA roles	^
Custom interactive controls have appropriate ARIA roles. <u>Learn more</u> .	
Visual order on the page follows DOM order	^
DOM order matches the visual order, improving navigation for assistive technology. <u>Learn more</u> .	
Offscreen content is hidden from assistive technology	^
Offscreen content is hidden with display: none or aria-hidden=true. <u>Learn more</u> .	
HTML5 landmark elements are used to improve navigation	^
Landmark elements ( <main>, <nav>, etc.) are used to improve the keyboard navigation of the page for assistive Learn more.</nav></main>	technology.
sed audits (10)	^
[aria-*] attributes match their roles	
[aria-*] attributes match their roles  Each ARIA `role` supports a specific subset of `aria-*` attributes. Mismatching these invalidates the `aria-*` attrib	
[aria-*] attributes match their roles  Each ARIA `role` supports a specific subset of `aria-*` attributes. Mismatching these invalidates the `aria-*` attributes.	utes. <u>Learn</u>
[aria-*] attributes match their roles  Each ARIA `role` supports a specific subset of `aria-*` attributes. Mismatching these invalidates the `aria-*` attributes.  More.  [aria-hidden="true"] is not present on the document <body>  Assistive technologies, like screen readers, work inconsistently when `aria-hidden="true"` is set on the document</body>	utes. <u>Learn</u>
Each ARIA `role` supports a specific subset of `aria-*` attributes. Mismatching these invalidates the `aria-*` attributes.  [aria-hidden="true"] is not present on the document <body>  Assistive technologies, like screen readers, work inconsistently when `aria-hidden="true"` is set on the document learn more.</body>	utes. <u>Learn</u> ^ t ` <body>`.</body>
[aria-*] attributes match their roles  Each ARIA `role` supports a specific subset of `aria-*` attributes. Mismatching these invalidates the `aria-*` attributes.  [aria-hidden="true"] is not present on the document <body>  Assistive technologies, like screen readers, work inconsistently when `aria-hidden="true"` is set on the document Learn more.  [aria-*] attributes have valid values</body>	utes. <u>Learn</u> ^ t ` <body>`.</body>
[aria-*] attributes match their roles  Each ARIA `role` supports a specific subset of `aria-*` attributes. Mismatching these invalidates the `aria-*` attributes.  [aria-hidden="true"] is not present on the document <body>  Assistive technologies, like screen readers, work inconsistently when `aria-hidden="true"` is set on the document Learn more.  [aria-*] attributes have valid values  Assistive technologies, like screen readers, can't interpret ARIA attributes with invalid values. Learn more.</body>	utes. <u>Learn</u> t ` <body>`.</body>
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[aria-*] attributes match their roles  Each ARIA 'role' supports a specific subset of 'aria-*' attributes. Mismatching these invalidates the 'aria-*' attributes.  [aria-hidden="true"] is not present on the document <body>  Assistive technologies, like screen readers, work inconsistently when 'aria-hidden="true"' is set on the document   Learn more.  [aria-*] attributes have valid values  Assistive technologies, like screen readers, can't interpret ARIA attributes with invalid values. Learn more.  [aria-*] attributes are valid and not misspelled  Assistive technologies, like screen readers, can't interpret ARIA attributes with invalid names. Learn more.  Background and foreground colors have a sufficient contrast ratio</body>	utes. <u>Learn</u> t ` <body>`.</body>
[aria-*] attributes match their roles  Each ARIA `role` supports a specific subset of `aria-*` attributes. Mismatching these invalidates the `aria-*` attributer.  [aria-hidden="true"] is not present on the document <body>  Assistive technologies, like screen readers, work inconsistently when `aria-hidden="true"` is set on the document Learn more.  [aria-*] attributes have valid values  Assistive technologies, like screen readers, can't interpret ARIA attributes with invalid values. Learn more.  [aria-*] attributes are valid and not misspelled  Assistive technologies, like screen readers, can't interpret ARIA attributes with invalid names. Learn more.  Background and foreground colors have a sufficient contrast ratio  Low-contrast text is difficult or impossible for many users to read. Learn more.</body>	utes. <u>Learn</u> t ` <body>`.</body>
	utes. <u>Learn</u> t ` <body>`.</body>

If a page doesn't specify a lang attribute, a screen reader assumes that the page is in the default language that the user chose when setting up the screen reader. If the page isn't actually in the default language, then the screen reader might not announce the page's text correctly. <u>Learn more</u>.

<html> element has a valid value for its [lang] attribute

Specifying a valid BCP 47 language helps screen readers announce text properly. Learn more.

Form elements have associated labels

Labels ensure that form controls are announced properly by assistive technologies, like screen readers. Learn more.

[user-scalable="no"] is not used in the <meta name="viewport"> element and the [maximum-scale] attribute is not less than 5.

Disabling zooming is problematic for users with low vision who rely on screen magnification to properly see the contents of a web page. <u>Learn more</u>.

#### Not applicable (31)

[accesskey] values are unique

Access keys let users quickly focus a part of the page. For proper navigation, each access key must be unique. Learn more.

[aria-hidden="true"] elements do not contain focusable descendents

Focusable descendents within an `[aria-hidden="true"]` element prevent those interactive elements from being available to users of assistive technologies like screen readers. <u>Learn more</u>.

ARIA input fields have accessible names

When an input field doesn't have an accessible name, screen readers announce it with a generic name, making it unusable for users who rely on screen readers. <u>Learn more</u>.

[role]s have all required [aria-\*] attributes

Some ARIA roles have required attributes that describe the state of the element to screen readers. Learn more.

Elements with an ARIA [role] that require children to contain a specific [role] have all required children.

Some ARIA parent roles must contain specific child roles to perform their intended accessibility functions. Learn more.

[role]s are contained by their required parent element

Some ARIA child roles must be contained by specific parent roles to properly perform their intended accessibility functions. <u>Learn more</u>.

[role] values are valid

ARIA roles must have valid values in order to perform their intended accessibility functions. Learn more.

ARIA toggle fields have accessible names

When a toggle field doesn't have an accessible name, screen readers announce it with a generic name, making it unusable for users who rely on screen readers. <u>Learn more</u>.

Buttons have an accessible name

When a button doesn't have an accessible name, screen readers announce it as "button", making it unusable for users who rely on screen readers. Learn more. The page contains a heading, skip link, or landmark region Adding ways to bypass repetitive content lets keyboard users navigate the page more efficiently. Learn more. <dl>'s contain only properly-ordered <dt> and <dd> groups, <script>, <template> or <div> elements. When definition lists are not properly marked up, screen readers may produce confusing or inaccurate output. Learn more. Definition list items are wrapped in <dl> elements Definition list items ('<dt>' and '<dd>') must be wrapped in a parent '<dl>' element to ensure that screen readers can properly announce them. Learn more. [id] attributes on active, focusable elements are unique All focusable elements must have a unique 'id' to ensure that they're visible to assistive technologies. Learn more. ARIA IDs are unique The value of an ARIA ID must be unique to prevent other instances from being overlooked by assistive technologies. Learn more. No form fields have multiple labels Form fields with multiple labels can be confusingly announced by assistive technologies like screen readers which use either the first, the last, or all of the labels. Learn more. <frame> or <iframe> elements have a title Screen reader users rely on frame titles to describe the contents of frames. Learn more. Heading elements appear in a sequentially-descending order Properly ordered headings that do not skip levels convey the semantic structure of the page, making it easier to navigate and understand when using assistive technologies. Learn more. Image elements have [alt] attributes Informative elements should aim for short, descriptive alternate text. Decorative elements can be ignored with an empty alt attribute. Learn more. <input type="image"> elements have [alt] text When an image is being used as an `<input>` button, providing alternative text can help screen reader users understand the purpose of the button. Learn more. Presentational elements avoid using , <caption> or the [summary] attribute. A table being used for layout purposes should not include data elements, such as the th or caption elements or the summary attribute, because this can create a confusing experience for screen reader users. Learn more. Links have a discernible name Link text (and alternate text for images, when used as links) that is discernible, unique, and focusable improves the navigation experience for screen reader users. Learn more. Lists contain only elements and script supporting elements (<script> and <template>).

Screen readers have a specific way of announcing lists. Ensuring proper list structure aids screen reader output. <u>Learn</u> more.

List items (<1i>) are contained within or parent elements

Screen readers require list items (``) to be contained within a parent `` or `` to be announced properly. <u>Learn more</u>.

The document does not use <meta http-equiv="refresh">

Users do not expect a page to refresh automatically, and doing so will move focus back to the top of the page. This may create a frustrating or confusing experience. <u>Learn more</u>.

<object> elements have [alt] text

Screen readers cannot translate non-text content. Adding all text to `<object>` elements helps screen readers convey meaning to users. <u>Learn more</u>.

No element has a [tabindex] value greater than 0

A value greater than 0 implies an explicit navigation ordering. Although technically valid, this often creates frustrating experiences for users who rely on assistive technologies. <u>Learn more</u>.

Cells in a element that use the [headers] attribute refer to table cells within the same table.

Screen readers have features to make navigating tables easier. Ensuring `` cells using the `[headers]` attribute only refer to other cells in the same table may improve the experience for screen reader users. Learn more.

elements and elements with [role="columnheader"/"rowheader"] have data cells they describe.

Screen readers have features to make navigating tables easier. Ensuring table headers always refer to some set of cells may improve the experience for screen reader users. <u>Learn more</u>.

[lang] attributes have a valid value

Specifying a valid <u>BCP 47 language</u> on elements helps ensure that text is pronounced correctly by a screen reader. <u>Learn more</u>.

<video> elements contain a <track> element with [kind="captions"]

When a video provides a caption it is easier for deaf and hearing impaired users to access its information. Learn more.

<video> elements contain a <track> element with [kind="description"]

Audio descriptions provide relevant information for videos that dialogue cannot, such as facial expressions and scenes. <u>Learn more</u>.



# **Best Practices**

Passed audits (14)

**Uses HTTPS** All sites should be protected with HTTPS, even ones that don't handle sensitive data. This includes avoiding mixed content, where some resources are loaded over HTTP despite the initial request being servedover HTTPS. HTTPS prevents intruders from tampering with or passively listening in on the communications between your app and your users, and is a prerequisite for HTTP/2 and many new web platform APIs. Learn more. Links to cross-origin destinations are safe Add `rel="noopener"` or `rel="noreferrer"` to any external links to improve performance and prevent security vulnerabilities. Learn more. Avoids requesting the geolocation permission on page load Users are mistrustful of or confused by sites that request their location without context. Consider tying the request to a user action instead. Learn more. Avoids requesting the notification permission on page load Users are mistrustful of or confused by sites that request to send notifications without context. Consider tying the request to user gestures instead. Learn more. Avoids front-end JavaScript libraries with known security vulnerabilities Some third-party scripts may contain known security vulnerabilities that are easily identified and exploited by attackers. Learn more. Allows users to paste into password fields Preventing password pasting undermines good security policy. Learn more. Displays images with correct aspect ratio Image display dimensions should match natural aspect ratio. Learn more. Displays images with appropriate size Image natural dimensions should be proportional to the display size and the pixel ratio to maximize image clarity. Learn more. Page has the HTML doctype Specifying a doctype prevents the browser from switching to quirks-mode. Learn more. Properly defines charset A character encoding declaration is required. It can be done with a <meta> tag in the first 1024 bytes of the HTML or in the Content-Type HTTP response header. Learn more. **Avoids Application Cache** Application Cache is deprecated. Learn more. **Detected JavaScript libraries** All front-end JavaScript libraries detected on the page. Learn more. Name Version 10.0.14 Angular

Avoids deprecated APIs

Deprecated APIs will eventually be removed from the browser. Learn more.

No browser errors logged to the console

Errors logged to the console indicate unresolved problems. They can come from network request failures and other browser concerns. <u>Learn more</u>



These checks ensure that your page is optimized for search engine results ranking. There are additional factors Lighthouse does not check that may affect your search ranking. <u>Learn more</u>.

Content Best Practices — Format your HTML in a way that enables crawlers to better understand your app's content.

Document does not have a meta description Meta descriptions may be included in search results to concisely summarize page content. Learn more. Additional items to manually check (1) — Run these additional validators on your site to check additional SEO best practices. Structured data is valid Run the <u>Structured Data Testing Tool</u> and the <u>Structured Data Linter</u> to validate structured data. <u>Learn more</u>. Passed audits (9) Has a <meta name="viewport"> tag with width or initial-scale Add a `<meta name="viewport">` tag to optimize your app for mobile screens. Learn more. Document has a <title> element The title gives screen reader users an overview of the page, and search engine users rely on it heavily to determine if a page is relevant to their search. Learn more. Page has successful HTTP status code Pages with unsuccessful HTTP status codes may not be indexed properly. Learn more. Links have descriptive text Descriptive link text helps search engines understand your content. Learn more Page isn't blocked from indexing

Search engines are unable to include your pages in search results if they don't have permission to crawl them. Learn more.

	Document has a valid hreflang			\
	hreflang links tell search engines what version of a pag <u>Learn more</u> .	ge they should list in sea	rch results for a given language or region.	
	Document uses legible font sizes — 100% legible tex	rt		\
	Font sizes less than 12px are too small to be legible are have >60% of page text ≥12px. <u>Learn more</u> .	nd require mobile visitors	to "pinch to zoom" in order to read. Strive to	
			Show 3rd-party resources (0)	
	Source Selector	% of Page Text	Font Size	
	Legible text	100.00%	≥ 12px	
	Document avoids plugins			\
	Search engines can't index plugin content, and many c	devices restrict plugins o	don't support them. <u>Learn more</u> .	
	Tap targets are sized appropriately — 100% appropri	ately sized tap targets		\
	Interactive elements like buttons and links should be lateral easy enough to tap without overlapping onto other elements.		and have enough space around them, to be	
lo	t applicable (3)			\
	robots.txt is valid			_
	If your robots.txt file is malformed, crawlers may not be indexed. <u>Learn more</u> .	e able to understand hov	you want your website to be crawled or	
	Image elements have [alt] attributes			_
	Informative elements should aim for short, descriptive attribute. <u>Learn more</u> .	alternate text. Decorative	e elements can be ignored with an empty alt	
	Document has a valid rel=canonical			\
	Canonical links suggest which URL to show in search	results. <u>Learn more</u> .		



# Progressive Web App

These checks validate the aspects of a Progressive Web App. Learn more.

### Fast and reliable

Page load is fast enough on mobile networks

A fast page load over a cellular network ensures a good mobile user experience. <u>Learn more</u>.

required to use the app. Learn more.

3/202	20	
<b>A</b>	Current page does not respond with a 200 when offline	^
	If you're building a Progressive Web App, consider using a service worker so that your app can work offline. <u>Learn more</u> .	
<u> </u>	start_url does not respond with a 200 when offline No usable web app manifest found on page.	^
	A service worker enables your web app to be reliable in unpredictable network conditions. <u>Learn more</u> .	
	Installable	
	Uses HTTPS	^
	All sites should be protected with HTTPS, even ones that don't handle sensitive data. This includes avoiding <u>mixed content</u> where some resources are loaded over HTTP despite the initial request being servedover HTTPS. HTTPS prevents intruders from tampering with or passively listening in on the communications between your app and your users, and is a prerequisite for HTTP/2 and many new web platform APIs. <u>Learn more</u> .	<u>ıt</u> ,
<b>A</b>	Does not register a service worker that controls page and start_url	^
	The service worker is the technology that enables your app to use many Progressive Web App features, such as offline, act to homescreen, and push notifications. <u>Learn more</u> .	dd
<b>A</b>	Web app manifest does not meet the installability requirements Failures: No manifest was fetched.	^
	Browsers can proactively prompt users to add your app to their homescreen, which can lead to higher engagement. <u>Learn more</u> .	!
	PWA Optimized	
	Redirects HTTP traffic to HTTPS	^
	If you've already set up HTTPS, make sure that you redirect all HTTP traffic to HTTPS in order to enable secure web features for all your users. <u>Learn more</u> .	
<u> </u>	Is not configured for a custom splash screen Failures: No manifest was fetched.	^
	A themed splash screen ensures a high-quality experience when users launch your app from their homescreens. <u>Learn more</u> .	
_	Does not set a theme color for the address bar.	
	Failures: No manifest was fetched, No ` <meta name="theme-color"/> ` tag found.	^
	The browser address bar can be themed to match your site. <u>Learn more</u> .	
	Content is sized correctly for the viewport	^
	If the width of your app's content doesn't match the width of the viewport, your app might not be optimized for mobile screens. <u>Learn more</u> .	
	Has a <meta name="viewport"/> tag with width or initial-scale	^
	Add a ` <meta name="viewport"/> ` tag to optimize your app for mobile screens. Learn more.	
	Contains some content when JavaScript is not available	^
	Your app should display some content when JavaScript is disabled, even if it's just a warning to the user that JavaScript is	

	Does not provide a valid apple-touch-icon
-	<ul> <li>Does not browne a valid apple-touch-icon</li> </ul>

For ideal appearance on iOS when users add a progressive web app to the home screen, define an 'apple-touch-icon'. It must point to a non-transparent 192px (or 180px) square PNG. <u>Learn More</u>.

#### ▲ Manifest doesn't have a maskable icon No manifest was fetched

A maskable icon ensures that the image fills the entire shape without being letterboxed when installing the app on a device. <u>Learn more</u>.

**Additional items to manually check (3)** — These checks are required by the baseline <u>PWA Checklist</u> but are not automatically checked by Lighthouse. They do not affect your score but it's important that you verify them manually.

Site works cross-browser

To reach the most number of users, sites should work across every major browser. Learn more.

Page transitions don't feel like they block on the network

Transitions should feel snappy as you tap around, even on a slow network. This experience is key to a user's perception of performance. <u>Learn more</u>.

Each page has a URL

Ensure individual pages are deep linkable via URL and that URLs are unique for the purpose of shareability on social media. <u>Learn more</u>.

#### Runtime Settings

URL https://abhinavsyal.github.io/Sapient-spaceX/

**Fetch Time** Sep 3, 2020, 2:50 PM GMT+5:30

**Device** Emulated Moto G4

**Network throttling** 150 ms TCP RTT, 1,638.4 Kbps throughput (Simulated)

**CPU throttling** 4x slowdown (Simulated)

**Channel** devtools

User agent (host) Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like

Gecko) Chrome/85.0.4183.83 Safari/537.36

User agent (network) Mozilla/5.0 (Linux; Android 6.0.1; Moto G (4)) AppleWebKit/537.36 (KHTML, like

Gecko) Chrome/80.0.3963.0 Mobile Safari/537.36 Chrome-Lighthouse

CPU/Memory Power 752

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