Rapport d'optimisation

Nina Carducci
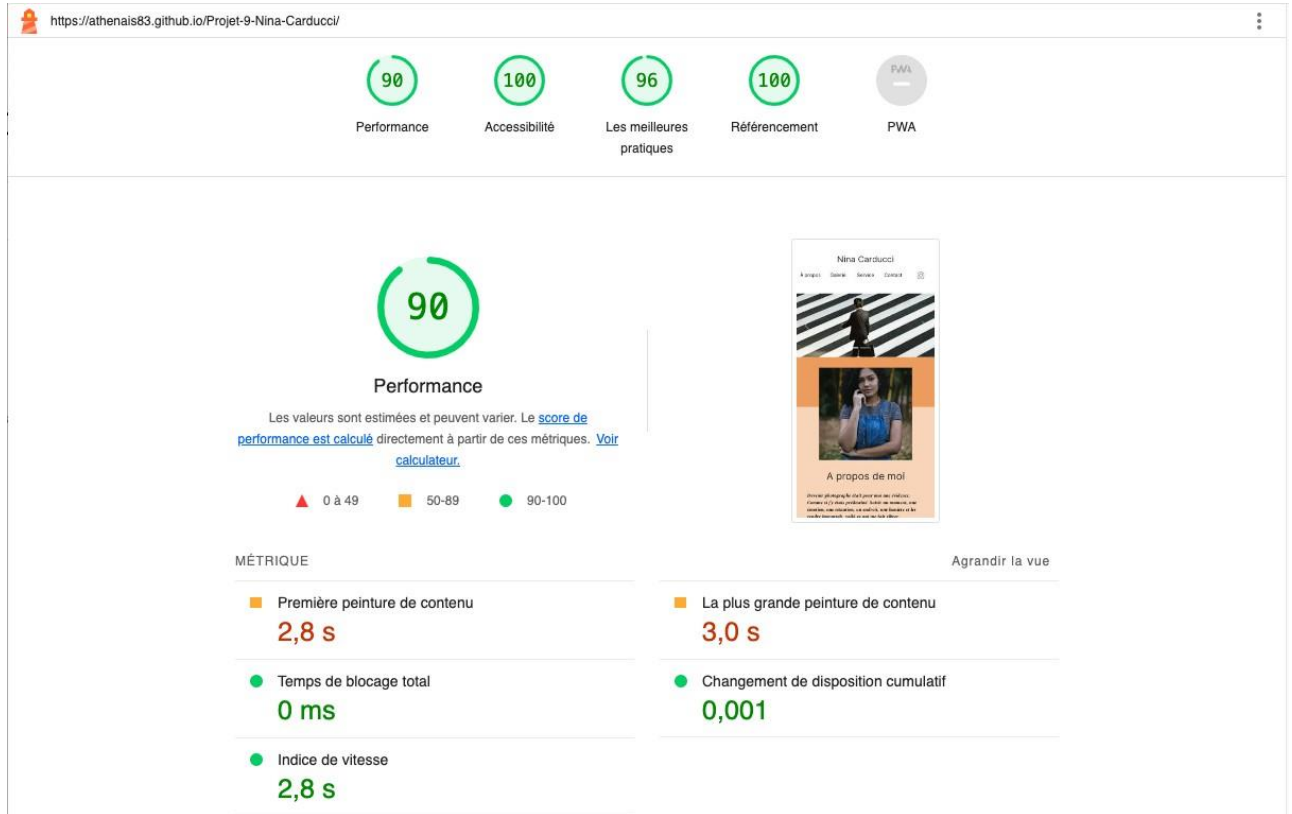
I - Comparatif avant et après optimisation

Score Lighthouse avant optimisation :

Score Lighthouse après optimisation :

II - Détails des optimisations effectuées

1 - Les images

Le projet comporte originalement *14* images pour un poids total de *30,9 MO*. Nous avonseffectué les modifications suivantes aux images :

- Redimensionnement des images pour qu'elles soient moins lourdes au chargement du site.
- Conversion des images de « png » en « webp » pour un chargement plus rapide des images.

Après les modifications, le poids total des images est de *395ko* soit un gain de *98,75%*.

2 – Balise méta description :

Le site internet manquer d'une balise méta description, qui permet au navigateur de vous référencer et de connaître la description de votre site internet.
Nous l'avons donc ajouté et ajouté une description de vos services.

III - Accessibilité du site
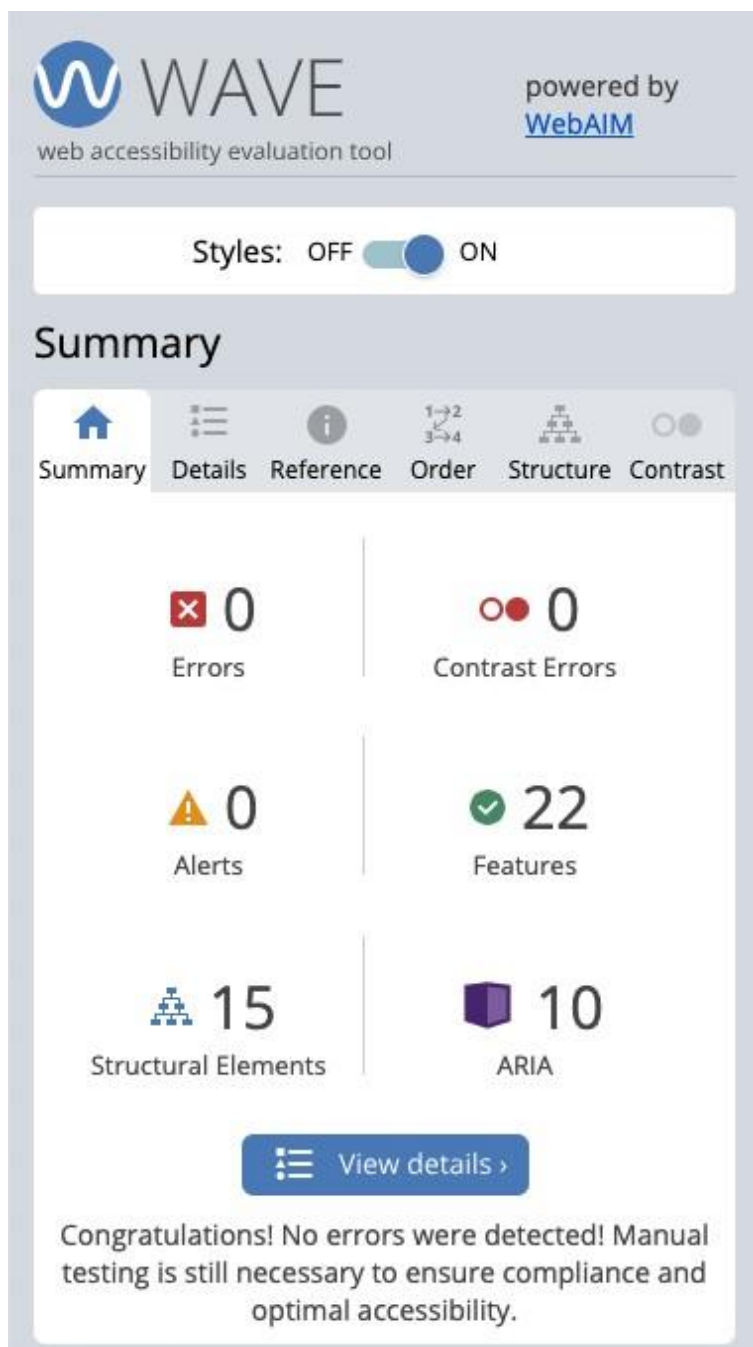
Les modifications apportées à votre site internet pour valider l'accessibilité sont les suivantes :

- *L'élément « title » a été ajouté pour nommer votre site internet auprès des navigateurs. On la nommer « Nina Carducci – Photographe ».*
- *Ajout de la langue « FR » dans la balise « lang », pour que le navigateur comprenne que votre site internet est en Français.*
- *Tous les attributs « alt » des images ont été renseignés, ce qui permet au navigateur d'afficher la description de l'image si l'image n'est pas chargée ou permet à l'utilisateur malvoyant de lire l'image en mode lecture.*
- *Ajout d'étiquettes sur les champs du formulaire de contact, pour permettre au navigateur de savoir de quel champ il s'agit (email, message, etc.).*
- *Changement du fond de couleur des boutons de catégories pour augmenter le contraste entre les couleurs et faciliter la lecture de l'utilisateur.*
- *Changements sémantiques des titres pour que cela respecte un ordre croissant.*

IV - Détails de réalisation additionnelles à la demande du client

1 – Référencement local :

A votre demande, nous avons également ajouté au site internet le référencement local avec Schema.org. Désormais les navigateurs ont vos informations concernant votre entreprise tels que :

- Adresse
- Téléphone
- Nom de l'entreprise
- Tranche de prix de vos services
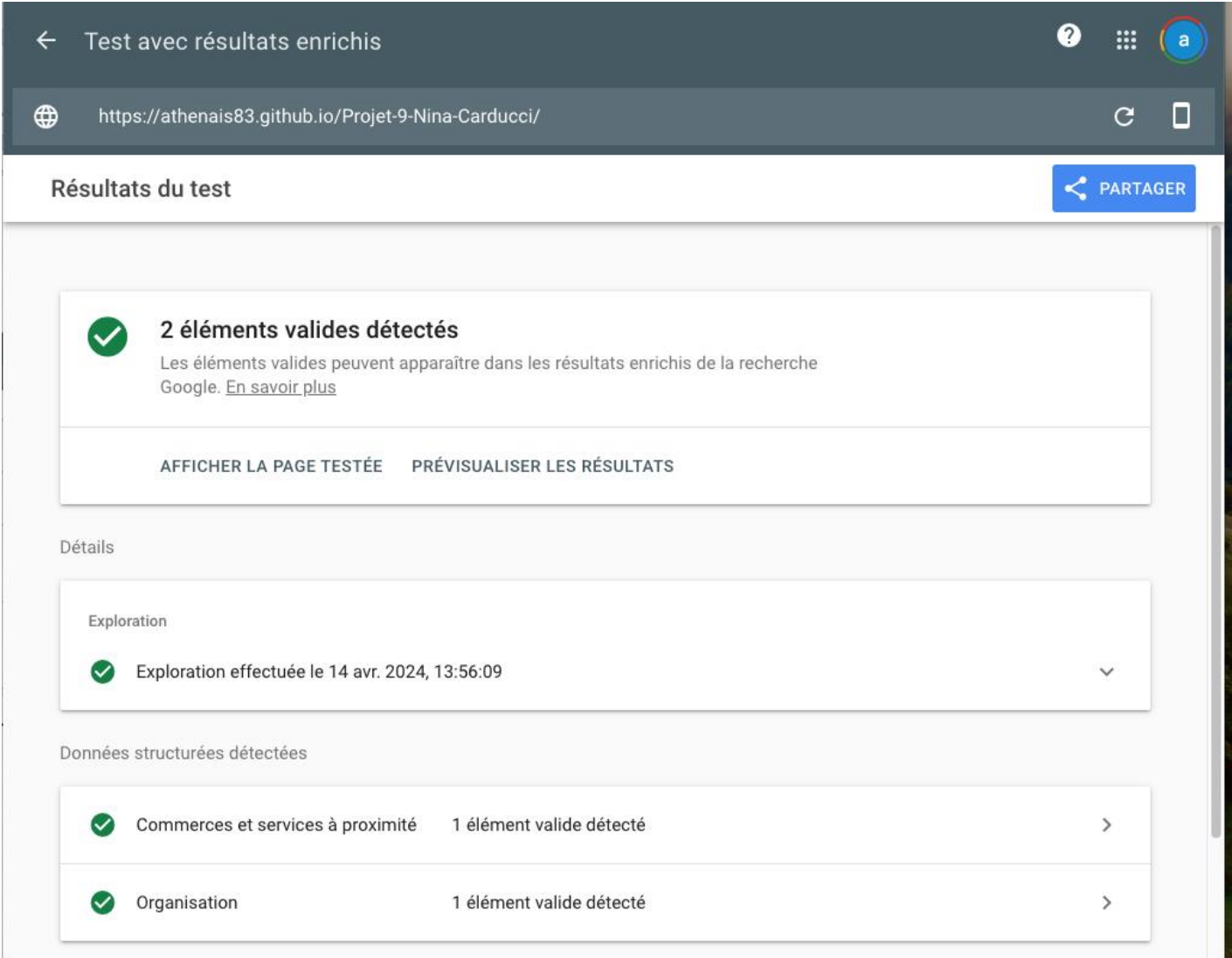- Horaires d'ouverture
- Etc.

ProfessionalService	0 ERREUR 0 AVERTISSEMENT ∧
@type	ProfessionalService
name	Nina Carducci
image	https://athenais83.github.io/Projet-9-Nina-Carducci/assets/images/nina.webp
url	https://athenais83.github.io/Projet-9-Nina-Carducci/
priceRange	50€ - 400€
telephone	0556677889
address	
@type	PostalAddress
streetAddress	68 avenue Alsace-Lorraine
addressLocality	Bordeaux
postalCode	33200
addressRegion	Nouvelle-Aquitaine
addressCountry	
@type	Country
name	France
openingHoursSpecification	
@type	OpeningHoursSpecification
dayOfWeek	http://schema.org/Monday
dayOfWeek	http://schema.org/Tuesday
dayOfWeek	http://schema.org/Wednesday
dayOfWeek	http://schema.org/Thursday
dayOfWeek	http://schema.org/Friday
opens	10:00
closes	19:00

2 – Balises méta données des réseaux sociaux :

Conformément à votre demande nous avons ajouté les balises méta données des réseaux sociaux Facebook et Twitter. Elles contiennent un titre, une description et une image miniature à tout lien partagé sur les réseaux sociaux.

Annexe

1 – Capture d'écran Audit Google Rich Snippets :

2 - Rapport complet de l'audit Lighthouse :

90   100   96   Lighthouse Report   100

Performance   Accessibilité   Les meilleures   Référencement   PWA
                                pratiques

90

Performance

Les valeurs sont estimées et peuvent varier. Le [score deperformance est calculé](#) directement à partir de ces métriques. [Voir calculateur](#).

🔺 0 à 49   🟧 50-89   🟢 90-100

MÉTRIQUE   Agrandir la vue

🟧 Première peinture de contenu   🟧 La plus grande peinture de contenu

2,8 s   **3,0 s**

🟢 Temps de blocage total   🟢 Changement de disposition cumulatif

0 ms   **0,001**

🟢 Indice de vitesse

2,8 s

[Voir l'arborescence]

DIAGNOSTIQUE

🔺 **Élimine les ressources bloquant le rendu** — Économies potentielles de 1 890 ms

90   100   96   100   PWA

ressources bloquant le rendu . FCP PCL

☑ Afficher les ressources tierces (2)

URL	Taille du transfert	Économies potentielles
GitHub [Utilitaire] [1ère Fête]	**71,6 Ko**	**1 250 ms**
…bootstrap/bootstrap.css (athenais83.github.io)	27,2 Ko	470 ms
…bootstrap/bootstrap.bundle.js (athenais83.github.io)	44,4 Ko	780 ms
Polices Google [Cdn]	**1,5 Ko**	**760 ms**
/css2?famille=… (fonts.googleapis.com)	1,5 Ko	760 ms
jQueryCDN [Cdn]	**30,5 Ko**	**1 200 ms**
/jquery-3.4.1.min.js (code.jquery.com)	30,5 Ko	1 200 ms

🔺 **Réduire JavaScript** — Économies potentielles de 16 Ko

La réduction des fichiers JavaScript peut réduire la taille des charges utiles et le temps d'analyse des scripts. Découvrez comment réduire JavaScript . FCP PCL

URL	Taille du transfert	Économies potentielles
GitHub Utilitaire 1ère Fête	**43,5 Ko**	**16,1 Ko**
…bootstrap/bootstrap.bundle.js (athenais83.github.io)	43,5 Ko	16,1 Ko

🔺 **Réduire les CSS inutilisés** — Économies potentielles de 25 Ko

Réduisez les règles inutilisées des feuilles de style et différez les CSS non utilisés pour le contenu au-dessus de la ligne de flottaison afin de réduire les octets consommés par l'activité réseau. Apprenez à réduire les CSS inutilisés . FCP PCL

URL	Taille du transfert	Économies potentielles
GitHub Utilitaire 1ère Fête	**26,4 Ko**	**25,4 Ko**
…bootstrap/bootstrap.css (athenais83.github.io)	26,4 Ko	25,4 Ko

⚠️ **Réduire le JavaScript inutilisé** — Économies potentielles de 30 Ko

     90   100   96   100   PWA

réduire le JavaScript inutilisé . PCL

URL	Taille du transfert	Économies potentielles
GitHub Utilitaire 1ère Fête	**43,5 Ko**	**30,5 Ko**
…bootstrap/bootstrap.bundle.js (athenais83.github.io)	43,5 Ko	30,5 Ko
…js/src/tooltip.js	3,9 Ko	3,2 Ko
…js/src/dropdown.js	2,9 Ko	2,1 Ko
…js/src/modal.js	2,3 Ko	1,7 Ko
…js/src/carrousel.js	3,3 Ko	1,7 Ko
…js/src/collapse.js	1,8 Ko	1,3 Ko

⚠️ **Le plus grand élément Contentful Paint** — 2 990 ms

Il s'agit du plus grand élément de contenu peint dans la fenêtre. En savoir plus sur le plus grand élément Contentful Paint PCL

Élément
ninacarducci `<img fetchpriority="high" src="./assets/images/nina.webp" alt="ninacarducci">`

Phase	% du PCL	Horaire
TTFB	24%	710 ms
Retard de chargement	17%	520 ms
Temps de chargement	32%	960 ms
Délai de rendu	27%	790 ms

🟧 **Réduire CSS** — Économies potentielles de 5 Ko

La réduction des fichiers CSS peut réduire la taille de la charge utile du réseau. Apprenez à réduire CSS . FCP PCL

URL		Taille du	Économies

90   100   96   100   PWA

…bootstrap/bootstrap.css (athenais83.github.io)	27,2 Ko	5,3 Ko

🟧 **Servir des actifs statiques avec une politique de cache efficace — 20 ressources trouvées**

Une longue durée de vie du cache peut accélérer les visites répétées sur votre page. En savoir plus sur les politiques de cache efficaces .

URL	Durée de vie du cache	Taille du transfert
GitHub [Utilitaire] [1ère Fête]		**429 Ko**
…slider/edward-ci….webp (athenais83.github.io)	10m	82 KiB
…concerts/aaron-pau….webp (athenais83.github.io)	10m	61 KiB
…slider/nicholas-….webp (athenais83.github.io)	10m	61 KiB
…bootstrap/bootstrap.bundle.js (athenais83.github.io)	10m	44 KiB
…portraits/ade-tunji-rVkhWWZFAtQ-unsplash.webp (athenais83.github.io)	10m	30 KiB
…bootstrap/bootstrap.css (athenais83.github.io)	10m	27 KiB
…mariage/jakob-owens-SiniLJkXhMc-unsplash.webp (athenais83.github.io)	10m	20 KiB
…entreprise/mateus-ca….webp (athenais83.github.io)	10m	15 KiB
…portraits/nino-van-….webp (athenais83.github.io)	10m	14 KiB
…images/camera.webp (athenais83.github.io)	10m	13 KiB
…images/nina.webp (athenais83.github.io)	10m	13 KiB
…slider/ryoji-iwa….webp (athenais83.github.io)	10m	13 KiB
…concerts/austin-ne….webp (athenais83.github.io)	10m	10 KiB
…entreprise/jason-goo….webp (athenais83.github.io)	10m	7 KiB
…mariage/hannah-bu….webp (athenais83.github.io)	10m	6 KiB
…entreprise/ali-morsh….webp (athenais83.github.io)	10m	5 KiB
…assets/maugallery.js (athenais83.github.io)	10m	3 KiB
…assets/style.css (athenais83.github.io)	10m	2 KiB

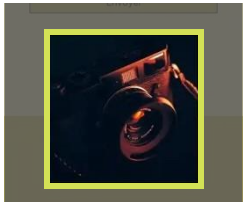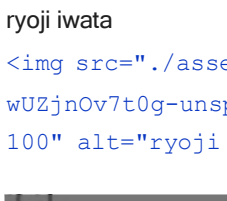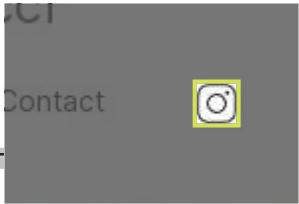| URL	Durée de vie du	Taille du
…images/instagram.png (athenais83.github.io)	10m	1 KiB
…assets/scripts.js (athenais83.github.io)	10m	1 KiB

🟧

Image elements do not have explicit `width` and `height`

Set an explicit width and height on image elements to reduce layout shifts and improve CLS. [Learn how to set image dimensions](#) CLS

	URL
GitHub Utility 1st Party	
camera `<img src="./assets/images/camera.webp" alt="camera">`	… images/camera.webp (athenais83.github.io)
ninacarducci `<img fetchpriority="high" src="./assets/images/nina.webp" alt="ninacarducci">`	…images/nina.webp (athenais83.github.io)
ryoji iwata `<img src="./assets/images/slider/ryoji-iwata-wUZjnOv7t0g-unsplash.webp" class="d-block w-100" alt="ryoji iwata">`	…slider/ryoji-iwa….webp (athenais83.github.io)
logo instagram `<img src="assets/images/instagram.png" alt="logo instagram">`	… images/instagram.png (athenais83.github.io)

○

Initial server response time was short — Root document took 120 ms

Keep the server response time for the main document short because all other requests depend on it. [Learn more about the Time to First Byte metric](#). FCP LCP

GitHub Utility 1st Party	120 ms

URL	Time Spent

90   100   96   100   PWA

○ **Avoids enormous network payloads** − Total size was 533 KiB

Large network payloads cost users real money and are highly correlated with long load times. Learn how to reduce payload sizes. LCP

☑ Show 3rd-party resources (3)

URL	Transfer Size
GitHub Utility 1st Party	**325.8 KiB**
…slider/edward-ci….webp (athenais83.github.io)	82.5 KiB
…concerts/aaron-pau….webp (athenais83.github.io)	60.8 KiB
…slider/nicholas-….webp (athenais83.github.io)	60.7 KiB
…bootstrap/bootstrap.bundle.js (athenais83.github.io)	44.4 KiB
…portraits/ade-tunji-rVkhWWZFAtQ-unsplash.webp (athenais83.github.io)	30.0 KiB
…bootstrap/bootstrap.css (athenais83.github.io)	27.2 KiB
…mariage/jakob-owens-SiniLJkXhMc-unsplash.webp (athenais83.github.io)	20.3 KiB
Google Fonts Cdn	**37.9 KiB**
…v13/UcCO3FwrK….woff2 (fonts.gstatic.com)	21.8 KiB
…v13/rnCu-xNNw….woff2 (fonts.gstatic.com)	16.1 KiB
jQuery CDN Cdn	**30.5 KiB**
/jquery-3.4.1.min.js (code.jquery.com)	30.5 KiB

○ **Avoids an excessive DOM size** − 131 elements

A large DOM will increase memory usage, cause longer style calculations, and produce costly layout reflows. Learn how to avoid an excessive DOM size. TBT

Statistic	Element	Value
Total DOM Elements		131
Maximum DOM Depth	<	9

Statistic	Element	Value

90   100   96   100   PWA

Maximum Child Elements	aaron paul `<div class="gallery-items-row row">`	9

○ **Avoid chaining critical requests** — 10 chains found

The Critical Request Chains below show you what resources are loaded with a high priority. Consider reducing the length of chains, reducing the download size of resources, or deferring the download of unnecessary resources to improve page load. [Learn how to avoid chaining critical requests](#). FCP LCP

Maximum critical path latency: **358.6 ms**

Initial Navigation

/Projet-9-Nina-Carducci/ (athenais83.github.io)

　　/jquery-3.4.1.min.js (code.jquery.com) **- 7.781 ms, 30.47 KiB**

　　…assets/style.css (athenais83.github.io) **- 128.515 ms, 2.09 KiB**

　　…assets/maugallery.js (athenais83.github.io) **- 115.363 ms, 2.66 KiB**

　　…bootstrap/bootstrap.css (athenais83.github.io) **- 153.862 ms, 27.19 KiB**

　/css2?family=   (fonts.googleapis.com)
　…

　　　…v13/rnCu-xNNw….woff2 (fonts.gstatic.com) **- 4.196 ms, 15.26 KiB**

　　　…v13/rnCu-xNNw….woff2   (fonts.gstatic.com) **- 4.718 ms, 16.05 KiB**

　　　…v13/rnCr-xNNw….woff2 (fonts.gstatic.com) **- 4.225 ms, 14.25 KiB**

　　　…v13/UcCO3FwrK….woff2 (fonts.gstatic.com) **- 2.863 ms, 21.83 KiB**

　　…bootstrap/bootstrap.bundle.js (athenais83.github.io) **- 135.672 ms, 44.38 KiB**

○   - -

　　…assets/scripts.js (athenais83.github.io) **- 118.05 ms, 0.91 KiB**

JavaScript execution time......0.2 s

Consider reducing the time spent parsing, compiling, and executing JS. You may find delivering smaller JS payloads helps with this. [Learn how to reduce Javascript execution time](#). TBT

Show 3rd-party resources (1)

URL			Total CPU Time	Script Evaluation	Script Parse
GitHub Utility 1st Party			272 ms	28 ms	13 ms

URL	Total CPU	Script Evaluation	Script Parse

90   100   96   100

PWA

…bootstrap/bootstrap.bundle.js (athenais83.github.io)	83 ms	24 ms	13 ms
jQuery CDN Cdn	**235 ms**	**134 ms**	**6 ms**
/jquery-3.4.1.min.js (code.jquery.com)	235 ms	134 ms	6 ms
Unattributable	**148 ms**	**6 ms**	**0 ms**

| ○ | Unattributable | 148 ms | 6 ms | 0 ms |

Minimizes main-thread work − 0.7 s

Consider reducing the time spent parsing, compiling and executing JS. You may find delivering smaller JS payloads helps with this. [Learn how to minimize main-thread work](#) TBT

Category	Time Spent
Other	262 ms
Script Evaluation	173 ms
Style & Layout	162 ms
Parse HTML & CSS	49 ms
Rendering	29 ms
Script Parsing & Compilation	20 ms

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. [Learn how to minimize third-party impact](#). TBT

Third-Party	Transfer Size	Main-Thread Blocking Time
jQuery CDN Cdn	**30 KiB**	**5 ms**
/jquery-3.4.1.min.js (code.jquery.com)	30 KiB	5 ms
Google Fonts Cdn	**69 KiB**	**0 ms**

...v13/UcCO3FwrK....woff2 (fonts.gstatic.com)	22 KiB	0 ms
...v13/rnCu-xNNw....woff2 (fonts.gstatic.com)	16 KiB	0 ms
...v13/rnCu-xNNw....woff2 (fonts.gstatic.com)	15 KiB	0 ms

Third-Party	Transfer Size	Main-Thread Blocking Time

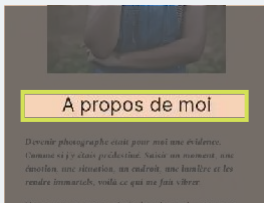90   100   96   100   PWA

○ Avoid large layout shifts — 1 layout shift found   -- /

These are the largest layout shifts observed on the page. Each table item represents a single layout shift, and shows the element that shifted the most. Below each item are possible root causes that led to the layout shift. Some of these layout shifts may not be included in the CLS metric value due to windowing. Learn how to improve CLS CLS

Element	Layout shift score
A propos de moi <h3 class="about-me_title">	0.001
...v13/rnCu-xNNw....woff2 (fonts.gstatic.com)	Web font loaded
...v13/rnCr-xNNw....woff2 (fonts.gstatic.com)	Web font loaded
...v13/rnCu-xNNw....woff2 (fonts.gstatic.com)	Web font loaded
...v13/UcCO3FwrK....woff2 (fonts.gstatic.com)	Web font loaded
...bootstrap/bootstrap.css (athenais83.github.io)	A late network request adjusted the page layout
...bootstrap/bootstrap.bundle.js (athenais83.github.io)	A late network request adjusted the page layout
...assets/style.css (athenais83.github.io)	A late network request adjusted the page layout
...assets/scripts.js (athenais83.github.io)	A late network request adjusted the page layout
...assets/maugallery.js (athenais83.github.io)	A late network request adjusted the page layout
/jquery-3.4.1.min.js (code.jquery.com)	A late network request adjusted the page layout
/css2?family=... (fonts.googleapis.com)	A late network request adjusted the page layout

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○ Avoid long main-thread tasks — 3 long tasks found   -- /

Lists the longest tasks on the main thread, useful for identifying worst contributors to input delay. Learn how to avoid long main-thread tasks TBT

☑ Show 3rd-party resources (1)

URL	Start Time	Duration
GitHub Utility 1st Party		97 ms
...bootstrap/bootstrap.bundle.js (athenais83.github.io)	2,147 ms	97 ms
Unattributable		63 ms

URL	Start Time	Duration

90   100   96   100   PWA

| /jquery-3.4.1.min.js (code.jquery.com) | 2,284 ms | 63 ms |

More information about the performance of your application. These numbers don't <u>directly affect</u> the Performance score.

PASSED AUDITS (20)   Hide

🟢 **Properly size images**   - ·

Serve images that are appropriately-sized to save cellular data and improve load time. <u>Learn how to size images</u>.

🟢 **Defer offscreen images**   - ·

Consider lazy-loading offscreen and hidden images after all critical resources have finished loading to lower time to interactive. <u>Learn how to defer offscreen images</u>.

🟢 **Efficiently encode images**   - ·

Optimized images load faster and consume less cellular data. <u>Learn how to efficiently encode images</u>.

🟢 **Serve images in next-gen formats**   - ·

Image formats like WebP and AVIF often provide better compression than PNG or JPEG, which means faster downloads and less data consumption. <u>Learn more about modern image formats</u>.

🟢 **Enable text compression**   - ·

Text-based resources should be served with compression (gzip, deflate or brotli) to minimize total network bytes. <u>Learn more about text compression</u>. FCP LCP

🟢 **Preconnect to required origins**   - ·

Consider adding `preconnect` or `dns-prefetch` resource hints to establish early connections to

90   100   96   100   PWA

● Avoid multiple page redirects   - -

Redirects introduce additional delays before the page can be loaded. [Learn how to avoid page](#) [redirects](#). FCP LCP

○ Preload key requests   - -

Consider using `<link rel=preload>` to prioritize fetching resources that are currentlyre-quested later in page load. [Learn how to preload key requests](#). FCP LCP

● Use video formats for animated content   - -

Large GIFs are inefficient for delivering animated content. Consider using MPEG4/WebM videos for animations and PNG/WebP for static images instead of GIF to save network bytes. [Learn more](#) [about efficient video formats](#) LCP

● Remove duplicate modules in JavaScript bundles   - -

Remove large, duplicate JavaScript modules from bundles to reduce unnecessary bytescon-sumed by network activity. TBT

● Avoid serving legacy JavaScript to modern browsers   - -

Polyfills and transforms enable legacy browsers to use new JavaScript features. However, many aren't necessary for modern browsers. For your bundled JavaScript, adopt a modern script de-ployment strategy using module/nomodule feature detection to reduce the amount of code shipped to modern browsers, while retaining support for legacy browsers. [Learn how to use](#) [modern JavaScript](#) TBT

● Preload Largest Contentful Paint image   - -

If the LCP element is dynamically added to the page, you should preload the image in order to improve LCP. [Learn more about preloading LCP elements](#). LCP

○ User Timing marks and measures   - -

Consider instrumenting your app with the User Timing API to measure your app's real-world

90   100   96   100   PWA

All text remains visible during webfont loads

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


Lazy load third-party resources with facades

Some third-party embeds can be lazy loaded. Consider replacing them with a facade until they are required. Learn how to defer third-parties with a facade. TBT

Largest Contentful Paint image was not lazily loaded

Above-the-fold images that are lazily loaded render later in the page lifecycle, which can delay the largest contentful paint. Learn more about optimal lazy loading. LCP
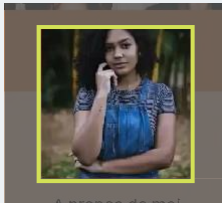
Element
ninacarducci `<img fetchpriority="high" src="./assets/images/nina.webp" alt="ninacarducci">`

Uses passive listeners to improve scrolling performance

Consider marking your touch and wheel event listeners as `passive` to improve your page's scroll performance. Learn more about adopting passive event listeners.

Avoids `document.write()`

For users on slow connections, external scripts dynamically injected via `document.write()` can delay page load by tens of seconds. Learn how to avoid document.write().

Avoid non-composited animations

Animations which are not composited can be janky and increase CLS. Learn how to avoid non-composited animations CLS

90   100   96   100   PWA

A `<meta   name="viewport">` not only optimizes your app for mobile screen sizes, but also prevents a 300 millisecond delay to user input. Learn more about using the viewport meta tag.

TBT

100

Accessibility

These checks highlight opportunities to improve the accessibility of your web app. Automatic detection can only detect a subset of issues and doesnot guarantee the accessibility of your web app, so manual testing is also encouraged.

ADDITIONAL ITEMS TO MANUALLY CHECK (10)   Hide

○   Interactive controls are keyboard focusable   - ∨

Custom interactive controls are keyboard focusable and display a focus indicator. Learn how to make custom controls focusable.

○   Interactive elements indicate their purpose and state   - ∨

Interactive elements, such as links and buttons, should indicate their state and be distinguishable from non-interactive elements. Learn how to decorate interactive elements with affordance hints.

○   The page has a logical tab order   - ∨

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

○   Visual order on the page follows DOM order   - ∨

DOM order matches the visual order, improving navigation for assistive technology. [Learn more](#)

90   100   96   100   PWA

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. [Learn how to avoid focus traps](#).

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. [Learn how to direct focus to new content](#).

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 technology. [Learn more about landmark elements](#).

Offscreen content is hidden from assistive technology

Offscreen content is hidden with display: none or aria-hidden=true. [Learn how to properly hide offscreen content](#).

Custom controls have associated labels

Custom interactive controls have associated labels, provided by aria-label or aria-labelledby. [Learn more about custom controls and labels](#).

Custom controls have ARIA roles

Custom interactive controls have appropriate ARIA roles. [Learn how to add roles to custom controls](#).

These items address areas which an automated testing tool cannot cover. Learn more in our guide on [conducting an accessibility review](#).

PASSED AUDITS (20)   Hide

🟢 `[aria-*]` attributes match their roles

Each ARIA `role` supports a specific subset of `aria-*` attributes. Mismatching these invalidates the `aria-*` attributes. [Learn how to match ARIA attributes to their roles](#).

● `[aria-hidden="true"]` is not present on the document `<body>`

● `[aria-*]` attributes have valid values

Assistive technologies, like screen readers, can't interpret ARIA attributes with invalid values. [Learn more about valid values for ARIA attributes](#).

● `[aria-*]` attributes are valid and not misspelled

Assistive technologies, like screen readers, can't interpret ARIA attributes with invalid names. [Learn more about valid ARIA attributes](#).

● 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 how to make buttons more accessible](#).

● 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 about the `alt` attribute](#).

● Input buttons have discernible text.

Adding discernable and accessible text to input buttons may help screen reader users understand the purpose of the input button. [Learn more about input buttons](#).

● `[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. [Learn more about the viewport meta tag](#).

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

Focusable descendents within an `[aria-hidden="true"]` element prevent those interactive

90   100   96   100   PWA

● Background and foreground colors have a sufficient contrast ratio

Low-contrast text is difficult or impossible for many users to read. Learn how to provide sufficient color contrast.

● 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 about document titles.

● `<html>` element has a `[lang]` attribute

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. Learn more about the `lang` attribute.

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

Specifying a valid BCP 47 language helps screen readers announce text properly. Learn how to use the `lang` attribute.

● Form elements have associated labels

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

● 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 how to make links accessible.

● Lists contain only `<li>` elements and script supporting elements (`<script>` and `<template>`).

<div align="center">90   100   96   100   PWA</div>

● List items (`<li>`) are contained within `<ul>`, `<ol>` or `<menu>` parent elements

Screen readers require list items (`<li>`) to be contained within a parent `<ul>`, `<ol>` or `<menu>` to be announced properly. Learn more about proper list structure.

● 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 about heading order.

● Values assigned to `role=""` are valid ARIA roles.

ARIA `role`s enable assistive technologies to know the role of each element on the web page. If the `role` values are misspelled, not existing ARIA `role` values, or abstract roles, then the purpose of the element will not be communicated to users of assistive technologies. Learn more about ARIA roles.

● Image elements do not have `[alt]` attributes that are redundant text.

Informative elements should aim for short, descriptive alternative text. Alternative text that is exactly the same as the text adjacent to the link or image is potentially confusing for screen reader users, because the text will be read twice. Learn more about the `alt` attribute.

NOT APPLICABLE (40)   Hide

○ `[accesskey]` values are unique

Access keys let users quickly focus a part of the page. For proper navigation, each access key

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○ `button`, `link`, and `menuitem` elements have accessible names

When an element doesn't have an accessible name, screen readers announce it with a generic

90   100   96   100   PWA

○ Elements with `role="dialog"` or `role="alertdialog"` have accessible names.

ARIA dialog elements without accessible names may prevent screen readers users from discerning the purpose of these elements. Learn how to make ARIA dialog elements more accessible.

○ 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. Learn more about input field labels.

○ ARIA `meter` elements have accessible names

When a meter element doesn't have an accessible name, screen readers announce it with a generic name, making it unusable for users who rely on screen readers. Learn how to name `meter` elements.

○ ARIA `progressbar` elements have accessible names

When a `progressbar` element doesn't have an accessible name, screen readers announce it with a generic name, making it unusable for users who rely on screen readers. Learn how to label `progressbar` elements.

○ `[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 about roles and required attributes.

○ 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 about roles and required children elements.

○ `[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. Learn more about ARIA roles and required parent element.

○ `[role]` values are valid

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○ Elements with the `role=text` attribute do not have focusable descendents.

Adding `role=text` around a text node split by markup enables VoiceOver to treat it as one phrase, but the element's focusable descendents will not be announced. [Learn more about the](#) `role=text` [attribute](#).

○ 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. [Learn more about toggle fields](#).

○ ARIA `tooltip` elements have accessible names

When a tooltip element doesn't have an accessible name, screen readers announce it with a generic name, making it unusable for users who rely on screen readers. [Learn how to name](#) `tooltip` [elements](#).

○ ARIA `treeitem` elements have accessible names

When a `treeitem` element doesn't have an accessible name, screen readers announce it with a generic name, making it unusable for users who rely on screen readers. [Learn more about labeling](#) `treeitem` [elements](#).

○ 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 about bypass blocks](#).

○ `<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 how to structure definition lists correctly](#).

○ 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 how to structure definition lists correctly](#).

○ `[id]` attributes on active, focusable elements are unique

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○ ARIA IDs are unique

The value of an ARIA ID must be unique to prevent other instances from being overlooked by assistive technologies. Learn how to fix duplicate ARIA IDs.

○ 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 how to use form labels.

○ `<frame>` or `<iframe>` elements have a title

Screen reader users rely on frame titles to describe the contents of frames. Learn more about frame titles.

○ `<html>` element has an `[xml:lang]` attribute with the same base language as the `[lang]` attribute.

If the webpage does not specify a consistent language, then the screen reader might not announce the page's text correctly. Learn more about the `lang` attribute.

○ `<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 about input image alt text.

○ Links are distinguishable without relying on color.

Low-contrast text is difficult or impossible for many users to read. Link text that is discernible improves the experience for users with low vision. Learn how to make links distinguishable.

○ 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. Learn more about the refresh meta tag.

○ `<object>` elements have alternate text

Screen readers cannot translate non-text content. Adding alternate text to `<object>` elements

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○ Select elements have associated label elements.

Form elements without effective labels can create frustrating experiences for screen reader users. Learn more about the `select` element.

○ Skip links are focusable.

Including a skip link can help users skip to the main content to save time. Learn more about skip links.

○ 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. Learn more about the `tabindex` attribute.

○ Tables have different content in the summary attribute and `<caption>`.

The summary attribute should describe the table structure, while `<caption>` should have the on-screen title. Accurate table mark-up helps users of screen readers. Learn more about summary and caption.

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

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

`<th>` elements and elements with `[role="columnheader"/"rowheader"]` have data cells theyde-scribe.

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. Learn more about table headers.

○ `[lang]` attributes have a valid value

Specifying a valid BCP 47 language on elements helps ensure that text is pronounced correctly by a screen reader. Learn how to use the `lang` attribute.

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

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All heading elements contain content.

A heading with no content or inaccessible text prevent screen reader users from accessing information on the page's structure. Learn more about headings.

Identical links have the same purpose.

Links with the same destination should have the same description, to help users understand the link's purpose and decide whether to follow it. Learn more about identical links.

Touch targets have sufficient size and spacing.

Touch targets with sufficient size and spacing help users who may have difficulty targeting small controls to activate the targets. Learn more about touch targets.

Elements with visible text labels have matching accessible names.

Visible text labels that do not match the accessible name can result in a confusing experience for screen reader users. Learn more about accessible names.

Tables use `<caption>` instead of cells with the `[colspan]` attribute to indicate a caption.

Screen readers have features to make navigating tables easier. Ensuring that tables use the actual caption element instead of cells with the `[colspan]` attribute may improve the experience for screen reader users. Learn more about captions.

`<td>` elements in a large `<table>` have one or more table headers.

Screen readers have features to make navigating tables easier. Ensuring that `<td>` elements in a large table (3 or more cells in width and height) have an associated table header may improve the experience for screen reader users. Learn more about table headers.

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Best Practices

USER EXPERIENCE

🔺 Serves images with low resolution   -

Image natural dimensions should be proportional to the display size and the pixel ratio to maximizeimage clarity. [Learn how to provide responsive images](#).

URL	Displayed size	Actual size	Expected size
GitHub [Utility] [1st Party]			
ryoji iwata `<img src="./assets/images/slider/ryoji-iwata-wUZjnOv7t0g-unsplash.webp" class="d-block w-100" alt="ryoji iwata">` …slider/ryoji-iwa….webp	412 x 191	378 x 175	618 x 287

TRUST AND SAFETY

⭘ Ensure CSP is effective against XSS attacks   -

A strong Content Security Policy (CSP) significantly reduces the risk of cross-site scripting (XSS) attacks. [Learn how to use a CSP to prevent XSS](#)

Description	Directive	Severity
No CSP found in enforcement mode		High

GENERAL

○   Detected JavaScript libraries

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Name	Version
Bootstrap	5.1.3
jQuery	3.4.1

PASSED AUDITS (13)   Hide

●   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 served over 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 about HTTPS.

●   Avoids deprecated APIs

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

●   Avoids third-party cookies

Support for third-party cookies will be removed in a future version of Chrome. Learn more about phasing out third-party cookies.

●   Allows users to paste into input fields

Preventing input pasting is a bad practice for the UX, and weakens security by blocking password managers.Learn more about user-friendly input fields.

●   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 about the geolocation permission.

● Avoids requesting the notification permission on page load

permission for notifications.

● Displays images with correct aspect ratio

Image display dimensions should match natural aspect ratio. Learn more about image aspect ratio.

● Page has the HTML doctype

Specifying a doctype prevents the browser from switching to quirks-mode. Learn more about the doctype declaration.

● 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 about declaring the character encoding.

● Avoids `unload` event listeners

The `unload` event does not fire reliably and listening for it can prevent browser optimizations like the Back-Forward Cache. Use `pagehide` or `visibilitychange` events instead. Learn more about unload event listeners

● 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. Learn more about this errors in console diagnostic audit

● No issues in the `Issues` panel in Chrome Devtools

Issues logged to the `Issues` panel in Chrome Devtools indicate unresolved problems. They can come from network request failures, insufficient security controls, and other browser concerns. Open up the Issues panel in Chrome DevTools for more details on each issue.

● Page has valid source maps

Source maps translate minified code to the original source code. This helps developers debug in

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URL	Map URL
GitHub Utility 1st Party	
...	...
bootstrap/bootstrap.bundle.js (athenais83.github.io)	bootstrap/bootstrap.bundle.js.map (athenais83.github.io)

NOT APPLICABLE (1)   Hide

○ Fonts with `font-display: optional` are preloaded   - ·

Preload `optional` fonts so first-time visitors may use them. [Learn more about preloading fonts](#)

100

SEO

These checks ensure that your page is following basic search engine optimization advice. There are many additional factors Lighthouse does not score here that may affect your search ranking, including performance on [Core Web Vitals](#). [Learn more about Google Search Essentials](#).

ADDITIONAL ITEMS TO MANUALLY CHECK (1)   Hide

○ Structured data is valid   - ·

Run the [Structured Data Testing Tool](#) and the [Structured Data Linter](#) to validate structured data.[Learn more about Structured Data](#).

Run these additional validators on your site to check additional SEO best practices.

PASSED AUDITS (12)   Hide

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A `<meta name="viewport">` not only optimizes your app for mobile screen sizes, but also prevents a 300 millisecond delay to user input. Learn more about using the viewport meta tag. ⎡BT⎤

● 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 about document titles.

● Document has a meta description

Meta descriptions may be included in search results to concisely summarize page content. Learn more about the meta description.

● Page has successful HTTP status code

Pages with unsuccessful HTTP status codes may not be indexed properly. Learn more about HTTP status codes.

● Links have descriptive text

Descriptive link text helps search engines understand your content. Learn how to make links more accessible.

● Links are crawlable

Search engines may use `href` attributes on links to crawl websites. Ensure that the `href` attribute of anchor elements links to an appropriate destination, so more pages of the site can be discovered. Learn how to make links crawlable

● 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 about crawler directives.

● Image elements have `[alt]` attributes

Informative elements should aim for short, descriptive alternate text. Decorative elements can be

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● Document has a valid `hreflang`

hreflang links tell search engines what version of a page they should list in search results for a given language or region. Learn more about `hreflang`.

● Document uses legible font sizes — 100% legible text

Font sizes less than 12px are too small to be legible and require mobile visitors to "pinch to zoom" in order to read. Strive to have >60% of page text ≥12px. Learn more about legible font sizes.

Source	Selector	% of Page Text	Font Size
Legible text		100.00%	≥ 12px

● Document avoids plugins

Search engines can't index plugin content, and many devices restrict plugins or don't support them. Learn more about avoiding plugins.

● Tap targets are sized appropriately — 100% appropriately sized tap targets

Interactive elements like buttons and links should be large enough (48x48px), or have enough space around them, to be easy enough to tap without overlapping onto other elements. Learn more about tap targets.

NOT APPLICABLE (2)   Hide

○   robots.txt is valid

If your robots.txt file is malformed, crawlers may not be able to understand how you want your

○   Document has a valid `rel=canonical`

Canonical links suggest which URL to show in search results. Learn more about canonical links.

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As per [Chrome's updated Installability Criteria](), Lighthouse will be deprecating the PWA category in a future release. Please refer to the [updated PWA documentation]() for future PWA testing.

PWA

These checks validate the aspects of a Progressive Web App. [Learn whatmakes a]() [good Progressive Web App]().

⊕ INSTALLABLE

⚠️ Web app manifest or service worker do not meet the installability requirements — 1 reason

Service Worker est la technologie qui permet à votre application d'utiliser de nombreuses fonctionnalités de Progressive Web App, telles que la connexion hors ligne, l'ajout à l'écran d'accueil et les notifications push. Avec un service worker approprié et des implémentations de manifestes, les navigateurs peuvent inciter de manière proactive les utilisateurs à ajouter votre application à leur écran d'accueil, ce qui peut conduire à un engagement plus élevé. [En savoir plussur les exigences d'installation du manifeste]() .

Raison de l'échec

Aucun manifeste n'a été récupéré

⭐ PWA OPTIMISÉE

▲　　N'est pas configuré pour un écran de démarrage personnalisé

　　　Échecs : aucun manifeste n'a été récupéré.

Un écran de démarrage thématique garantit une expérience de haute qualité lorsque les

90   100   96   100   PWA

▲   **Ne définit pas de couleur de thème pour la barre d'adresse.**
    Échecs : aucun manifeste n'a été récupéré, aucune balise `<meta name="theme-color">` trouvée.

La barre d'adresse du navigateur peut avoir un thème correspondant à votre site. [En savoir plus sur la thématique de la barre d'adresse](#) .

● **Le contenu est correctement dimensionné pour la fenêtre d'affichage**

Si la largeur du contenu de votre application ne correspond pas à la largeur de la fenêtre d'affichage, votre application n'est peut-être pas optimisée pour les écrans mobiles. [Découvrez comment dimensionner le contenu de la fenêtre d'affichage](#) .

● **A une `<meta name="viewport">`étiquette avec `width`ou`initial-scale`**

A `<meta name="viewport">`optimise non seulement votre application pour les tailles d'écran mobile, mais évite également [un délai de 300 millisecondes avant la saisie de l'utilisateur](#) . [En savoir plus sur l'utilisation de la balise méta viewport](#) . [OTC]

▲   **Le manifeste n'a pas d'icône masquable** Aucun manifeste n'a été récupéré

Une icône masquable garantit que l'image remplit toute la forme sans être mise en boîte aux lettres lors de l'installation de l'application sur un appareil. [Découvrez les icônes de manifeste masquables](#) .

ÉLÉMENTS SUPPLÉMENTAIRES À VÉRIFIER MANUELLEMENT (3)   Cacher

○   Le site fonctionne sur plusieurs navigateurs

Pour atteindre le plus grand nombre d'utilisateurs, les sites doivent fonctionner sur tous les principaux navigateurs. [En savoir plus sur la compatibilité entre navigateurs](#) .

○   Les transitions de page ne semblent pas bloquer sur le réseau

Les transitions doivent être rapides lorsque vous appuyez, même sur un réseau lent. Cette expérience est essentielle à la perception de la performance d'un utilisateur. [En savoir plus sur lestransitions de pages](#) .

○   Chaque page a une URL

Assurez-vous que les pages individuelles peuvent être liées en profondeur via une URL et que les

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| 90 | 100 | 96 | 100 | PWA |

Ces vérifications sont requises par la [liste de contrôle PWA](#) de base , mais ne sont pas automatiquement vérifiées parLighthouse. Ils n'affectent pas votre score mais il est important que vous les vérifiiez manuellement.

📅 Capturé le 17 mars 2024, 16h46 GMT+1

⏱️ Chargement initial de la page

💻 [Bureau émulé avec Lighthouse 11.5.0](#)

📶 [Inconnu](#)

🔗 [Séance d'une seule page](#)

🌐 [Utilisation de HeadlessChromium 122.0.6261.94 avec lr](#)

Généré par **Lighthouse** 11.5.0 | [Déposer un problème](#)