



Performance Report for: <https://hti.ai/>

Report generated: Tue, Mar 12, 2024 2:57 AM -0700
 Test Server Location: London, UK
 Using: Chrome 117.0.0.0, Lighthouse 11.0.0

B	Performance	Structure	L. Contentful Paint	T. Blocking Time	C. Layout Shift
	84%	91%	1.8s	0ms	0.11

Top Issues

Med	Use explicit width and height on image elements CLS	1 image found
Med-Low	Use a Content Delivery Network (CDN)	30 resources found
Low	Efficiently encode images	Potential savings of 55.0KB
Low	Avoid large layout shifts CLS	5 elements found
Low	Serve static assets with an efficient cache policy	Potential savings of 24.1KB

Page Details



Total Page Size - 725KB



Total Page Requests - 50



HTML JS CSS IMG Video Font Other

How does this affect me?

Today's web user expects a fast and seamless website experience. Delivering that fast experience can result in increased visits, conversions and overall happiness.

As if you didn't need more incentive, **Google has announced that they are using page speed in their ranking algorithm.**

About GTmetrix

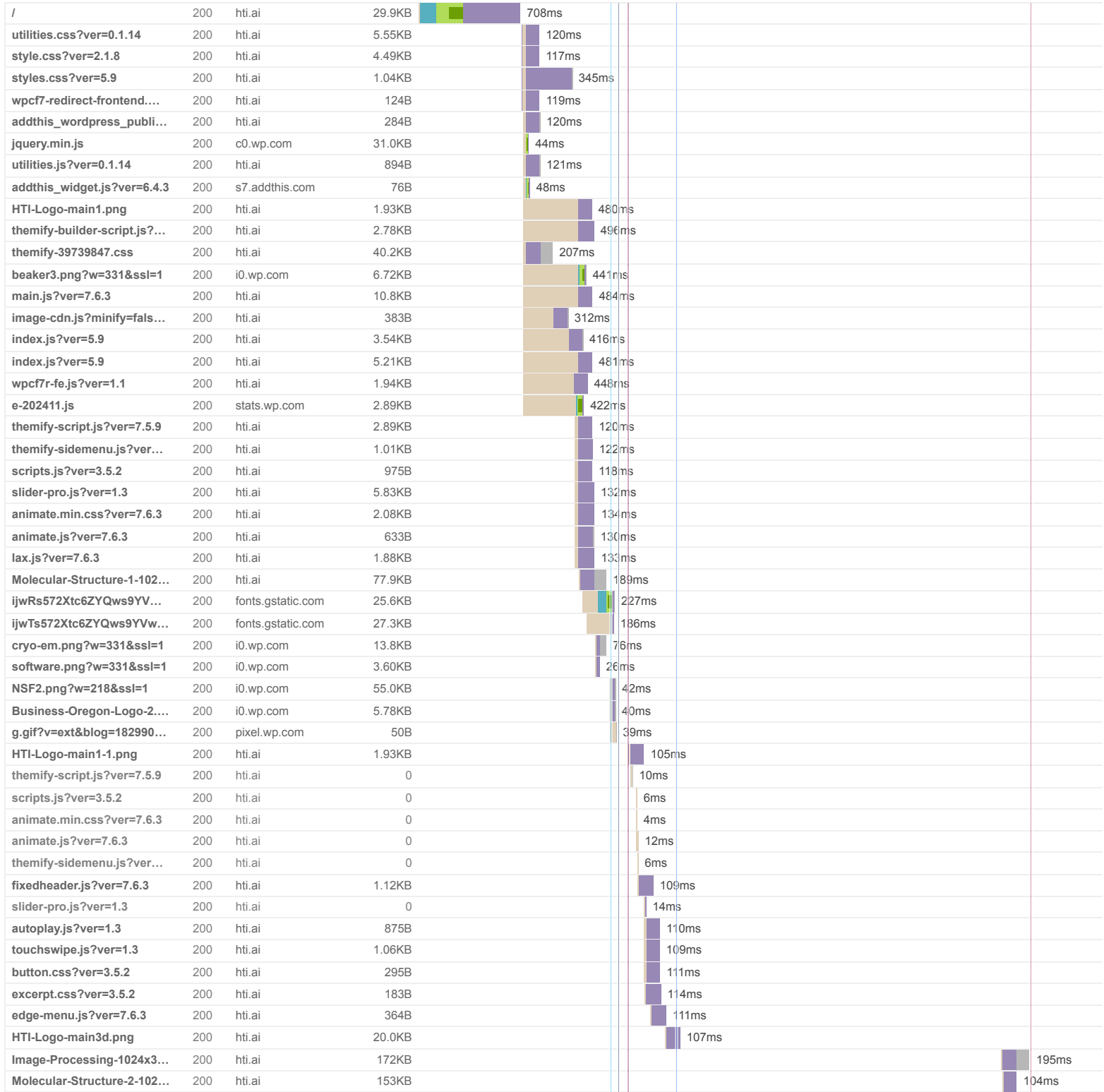
GTmetrix is developed by the good folks at **CARBON60**, a Canadian hosting company with over 28 years experience in web technology.



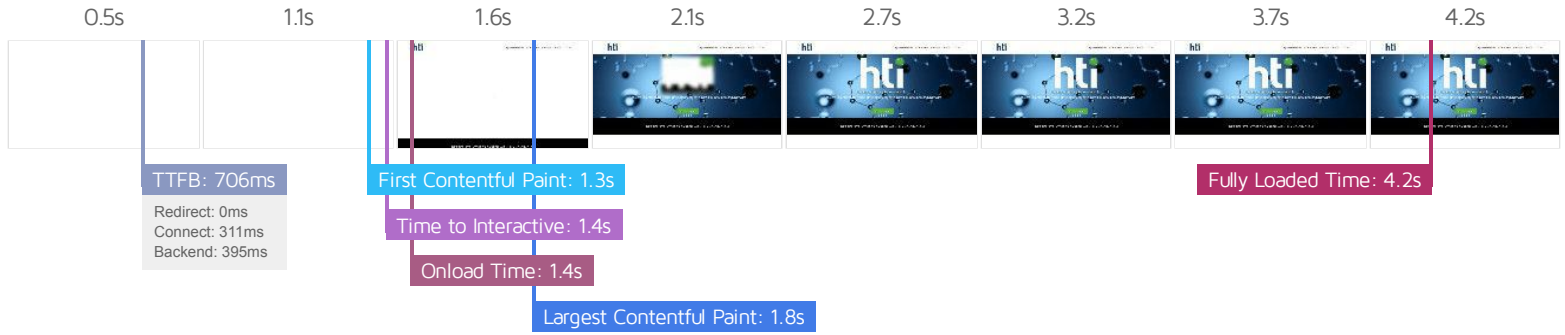
<https://carbon60.com/>

The waterfall chart displays the loading behaviour of your site in your selected browser. It can be used to discover simple issues such as 404's or more complex issues such as external resources blocking page rendering.

Health Technology Innovations - Health Technology Innovations, Inc.



50 Requests 725KB (1.07MB Uncompressed) 4.2s (Onload 1.4s)



Performance Metrics

<p>First Contentful Paint</p> <p>How quickly content like text or images are painted onto your page. A good user experience is 0.9s or less.</p>	<p>Longer than recommended</p> <p>1.3s</p>	<p>Time to Interactive</p> <p>How long it takes for your page to become fully interactive. A good user experience is 2.5s or less.</p>	<p>Good - Nothing to do here</p> <p>1.4s</p>
<p>Speed Index</p> <p>How quickly the contents of your page are visibly populated. A good user experience is 1.3s or less.</p>	<p>Longer than recommended</p> <p>1.7s</p>	<p>Total Blocking Time</p> <p>How much time is blocked by scripts during your page loading process. A good user experience is 150ms or less.</p>	<p>Good - Nothing to do here</p> <p>0ms</p>
<p>Largest Contentful Paint</p> <p>How long it takes for the largest element of content (e.g. a hero image) to be painted on your page. A good user experience is 1.2s or less.</p>	<p>Longer than recommended</p> <p>1.8s</p>	<p>Cumulative Layout Shift</p> <p>How much your page's layout shifts as it loads. A good user experience is a score of 0.1 or less.</p>	<p>OK, but consider improvement</p> <p>0.11</p>

Browser Timings

Redirect	0ms	Connect	311ms	Backend	395ms
TTFB	706ms	First Paint	1.3s	DOM Int.	1.3s
DOM Loaded	1.4s	Onload	1.4s	Fully Loaded	4.2s

IMPACT AUDIT

Low **Reduce unused CSS** FCP LCP Potential savings of 35.2KB

Reduce unused rules from stylesheets and defer CSS not used for above-the-fold content to decrease bytes consumed by network activity.

URL	TRANSFER SIZE	POTENTIAL SAVINGS
• https://hti.ai/wp-content/uploads/themify-concate/3175486313/themify-39739847.css	40.2KB	35.2KB

Low **Eliminate render-blocking resources** FCP LCP Potential savings of 26ms

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

Resources that **may** be contributing to render-blocking include:

URL	TRANSFER SIZE	DOWNLOAD TIME
• https://c0.wp.com/c/6.4.3/wp-includes/js/jquery/jquery.min.js	31.0KB	1.1s

Low **Serve images in next-gen formats** Potential savings of 256KB

Image formats like WebP and AVIF often provide better compression than PNG or JPEG, which means faster downloads and less data consumption.

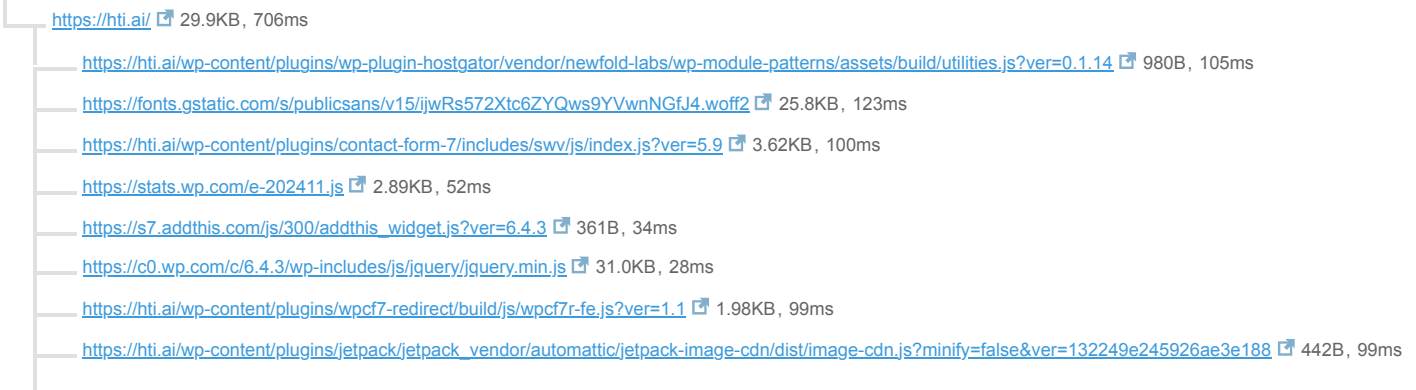
URL	RESOURCE SIZE	POTENTIAL SAVINGS
https://hti.ai/wp-content/uploads/2020/09/Image-Processing-1024x389-1800x600.jpg	172KB	100KB
https://hti.ai/wp-content/uploads/2020/09/Molecular-Structure-2-1024x389-1800x600.jpg	153KB	95.1KB
https://hti.ai/wp-content/uploads/2020/09/Molecular-Structure-1-1024x389-1800x600.jpg	77.9KB	48.6KB
https://hti.ai/wp-content/uploads/2024/02/HTI-Logo-main3d.png	20.0KB	12.1KB

Low **Avoid chaining critical requests** FCP LCP 9 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.

Maximum critical path latency: **1.4s**

INITIAL NAVIGATION



Low **Avoid an excessive DOM size** TBT 369 elements

A large DOM will increase memory usage, cause longer style calculations, and produce costly layout reflows.

STATISTIC	ELEMENT	VALUE
Total DOM Elements		369
Maximum DOM Depth	p > span > sup > span 	25
Maximum Child Elements	body.home <body class="home page-template-default page page-id-7 skin-default sidebar-none full_w...">	17

Low **Avoid enormous network payloads** LCP Total size was 729KB

Large network payloads cost users real money and are highly correlated with long load times.

URL	TRANSFER SIZE
https://hti.ai/wp-content/uploads/2020/09/Image-Processing-1024x389-1800x600.jpg	172KB
https://hti.ai/wp-content/uploads/2020/09/Molecular-Structure-2-1024x389-1800x600.jpg	153KB
https://hti.ai/wp-content/uploads/2020/09/Molecular-Structure-1-1024x389-1800x600.jpg	78.0KB
https://i0.wp.com/hti.ai/wp-content/uploads/2020/09/NSF2.png?w=218&ssl=1	55.0KB
https://hti.ai/wp-content/uploads/themify-concate/3175486313/themify-39739847.css	40.2KB
https://c0.wp.com/c/6.4.3/wp-includes/js/jquery/jquery.min.js	31.0KB
https://hti.ai/	29.9KB
https://fonts.gstatic.com/s/publicsans/v15/ijwTs572Xtc6ZYQws9YVwnNDTJzaxw.woff2	27.9KB
https://fonts.gstatic.com/s/publicsans/v15/ijwRs572Xtc6ZYQws9YVwnNgfJ4.woff2	25.8KB
https://hti.ai/wp-content/uploads/2024/02/HTI-Logo-main3d.png	20.1KB

Low **Avoid long main-thread tasks** TBT 1 long task found

Lists the longest tasks on the main thread, useful for identifying worst contributors to input delay.

URL	START TIME	DURATION
https://hti.ai/	1.1s	126ms

Low **Reduce JavaScript execution time** TBT 105ms spent executing JavaScript

Consider reducing the time spent parsing, compiling, and executing JS. You may find delivering smaller JS payloads helps with this.

URL	TOTAL CPU TIME	SCRIPT EVALUATION	SCRIPT PARSE
https://hti.ai/	609ms	35ms	2ms
Unattributable	131ms	0ms	0ms
https://hti.ai/wp-content/themes/themify-ultra/themify/js/main.js?ver=7.6.3	109ms	67ms	0ms

Low

Reduce initial server response time FCP LCP

Root document took 394ms

Keep the server response time for the main document short because all other requests depend on it.

URL	TIME SPENT
• https://hti.ai/	394ms

Low

Avoid non-composited animations CLS

7 animated elements found

Animations which are not composited can be janky and increase CLS.

ELEMENT	NAME
beaker3 <pre><div class="module_row themify_builder_row tb_bdnx265 tf_w hide-desktop hide-tablet hi..." style="visibility: visible; animation-name: slideInLeft;"></pre> Unsupported CSS Property: visibility	slideInLeft
cryo-em <pre><div class="module_row themify_builder_row tb_ovjn98 tf_w hide-desktop hide-tablet hid..." style="visibility: visible; animation-name: slideInLeft;"></pre> Unsupported CSS Property: visibility	slideInLeft
software <pre><div class="module_row themify_builder_row tb_o86g993 tf_w hide-desktop hide-tablet hi..." style="visibility: visible; animation-name: slideInLeft;"></pre> Unsupported CSS Property: visibility	slideInLeft
Providing fast, affordable and scalable cryo-EM services Learn More <pre><div class="sp-mask tf_rel tf_overflow" style="height: 455.333px; width: 1366px;"></pre> Unsupported CSS Property: height	height
HTI-Logo-main3d <pre></pre> Filter-related property may move pixels	filter
HTI-Logo-main3d <pre></pre> Filter-related property may move pixels	filter
HTI-Logo-main3d <pre></pre> Filter-related property may move pixels	filter

Low

Reduce unused JavaScript LCP

Potential savings of 23.0KB

Reduce unused JavaScript and defer loading scripts until they are required to decrease bytes consumed by network activity.

URL	TRANSFER SIZE	POTENTIAL SAVINGS
https://c0.wp.com/c/6.4.3/wp-includes/js/jquery/jquery.min.js	31.0KB	23.0KB

N/A

Largest Contentful Paint element LCP

1,780 ms

This is the largest contentful element painted within the viewport.

ELEMENT

HTI-Logo-main3d

```
<div class="sp-slide sp-slide-0 sp-slide-type-Image bsp-slide-content-center tf_textc ..." data-transition="fade" data-duration="1" style="background-image: url(&quot;https://hti.ai/wp-content/uploads/2020/09/Molecular...&quot;);" data-lazy-done="1">
```

PHASE	% OF LCP	TIMING
TTFB	40%	707ms
Load Delay	23%	412ms
Load Time	11%	187ms
Render Delay	27%	472ms

N/A **Minimize main-thread work** TBT Main-thread busy for 943ms

Consider reducing the time spent parsing, compiling and executing JS. You may find delivering smaller JS payloads helps with this.

CATEGORY	TIME SPENT
Other	423ms
Style & Layout	286ms
Script Evaluation	141ms
Rendering	49ms
Parse HTML & CSS	32ms
Script Parsing & Compilation	10ms

N/A **Reduce the impact of third-party code** TBT Total size was 174KB

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.

THIRD-PARTY	TRANSFER SIZE	MAIN-THREAD BLOCKING TIME
WORDPRESS	117KB	0ms
• https://i0.wp.com/hti.ai/wp-content/uploads/2020/09/NSF2.png?w=218&ssl=1	55.0KB	0ms
• https://c0.wp.com/c/6.4.3/wp-includes/js/jquery/jquery.min.js	31.0KB	0ms
• https://i0.wp.com/hti.ai/wp-content/uploads/2020/09/cryo-em.png?w=331&ssl=1	14.2KB	0ms
• https://i0.wp.com/hti.ai/wp-content/uploads/2020/09/beaker3.png?w=331&ssl=1	7.10KB	0ms
• Other resources	9.8KB	0ms
GOOGLE FONTS	53.6KB	0ms
• https://fonts.gstatic.com/s/publicsans/v15/ijwTs572Xtc6ZYQws9YVwnNDTJzaxw.woff2	27.9KB	0ms
• https://fonts.gstatic.com/s/publicsans/v15/ijwRs572Xtc6ZYQws9YVwnNGfJ4.woff2	25.8KB	0ms
WORDPRESS SITE STATS	3.06KB	0ms
ADDDTHIS	361B	0ms

N/A

Avoid serving legacy JavaScript to modern browsers TBT

Nothing to do here, good job!

N/A

User Timing marks and measures

No user timings and/or marks found.