



automatic web font optimisation with fontaine

Daniel Roe

daniel@roe.dev

🐦 @danielcroe

✉️ @daniel@roe.dev

hello 🙌

⚡ nuxt.com • ⚡ nitro.unjs.io • ⚡ page-speed.dev •

🦄 regexp.dev 📄 fontaine.sh • 🦌 elk.zone • 🏴 firstcommit.is •

⚡ react-to-nuxt.com



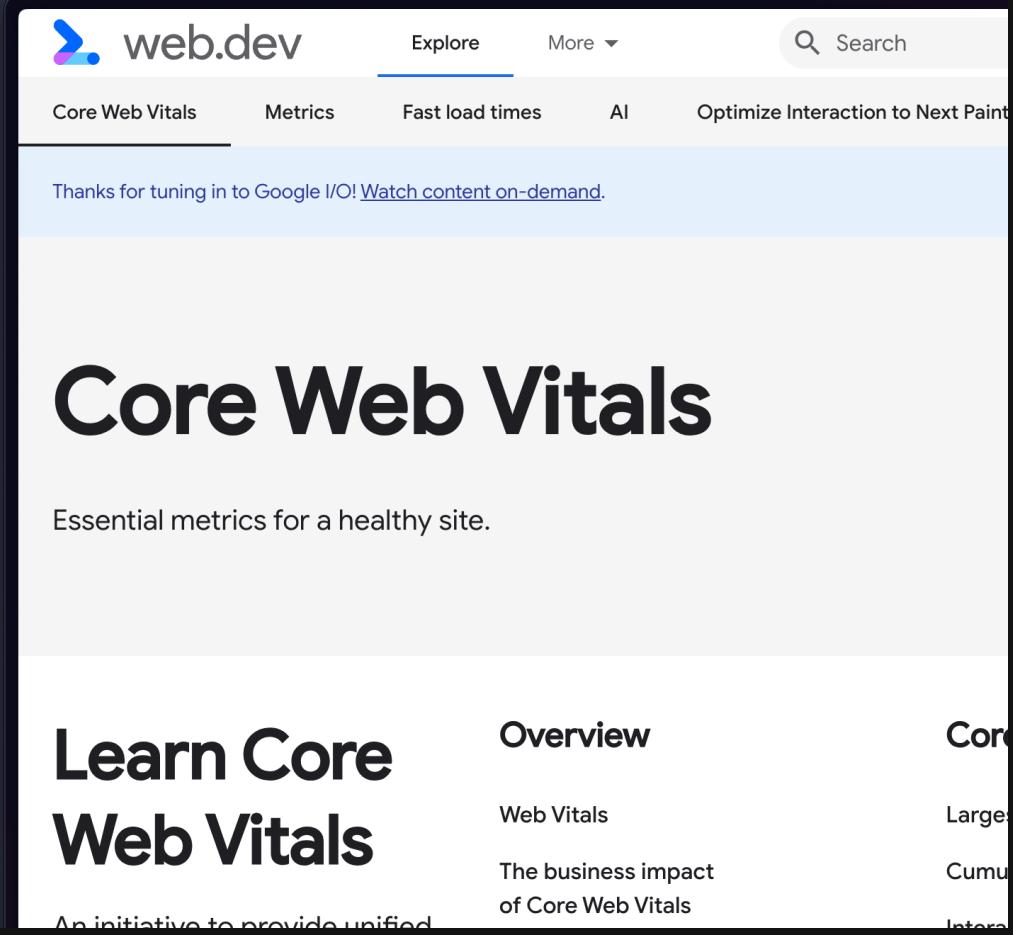




core web vitals

web.dev/explore/learn-core-web-vitals

- ◆ largest contentful paint · **LCP**
- ◆ cumulative layout shift · **CLS**
- ◆ interaction to next paint · **INP**



The screenshot shows the web.dev website with the "Explore" tab selected. The main heading is "Core Web Vitals". Below it, there's a message: "Thanks for tuning in to Google I/O! Watch content on-demand." The "Core Web Vitals" section is highlighted with a large title and a subtext: "Essential metrics for a healthy site." To the right, there are two columns: "Learn Core Web Vitals" and "Overview". The "Learn Core Web Vitals" column contains links to "Web Vitals", "The business impact of Core Web Vitals", and "Interaction to Next Paint". The "Overview" column contains links to "Large Images", "Cumulative Layout Shift", and "Interaction to Next Paint".

Thanks for tuning in to Google I/O! [Watch content on-demand.](#)

Core Web Vitals

Essential metrics for a healthy site.

Learn Core Web Vitals

An initiative to provide unified

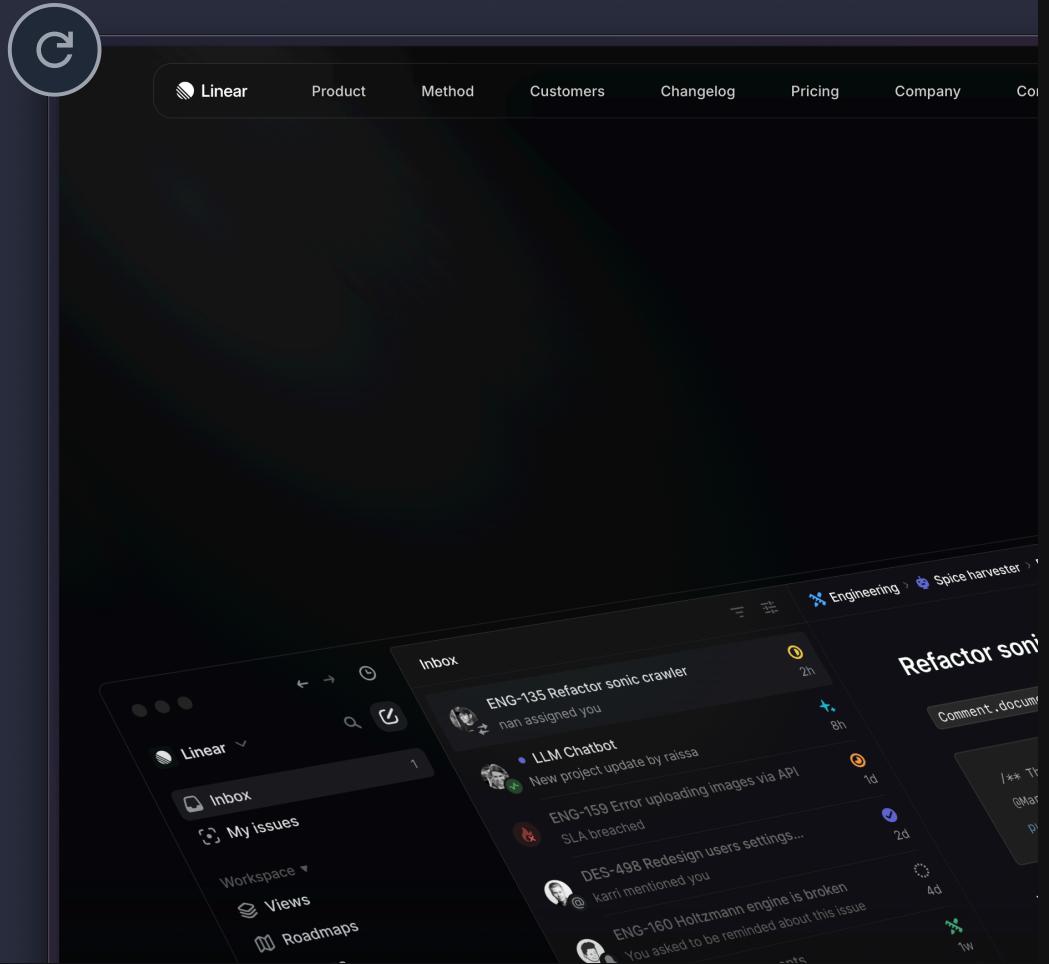
Learn Core Web Vitals	Overview
Web Vitals	Large Images
The business impact of Core Web Vitals	Cumulative Layout Shift
Interaction to Next Paint	Interaction to Next Paint

web fonts

... and our friend cumulative layout shift

- ◆ font-display: block;
- ◆ font-display: swap;
- ◆ with 'native' fallback

Open Sans



web fonts

reduce loading time

- ◆ **inline fonts as data uris** » not cacheable
- ◆ **subset fonts** » not scaleable
- ◆ **preload fonts** » not performant

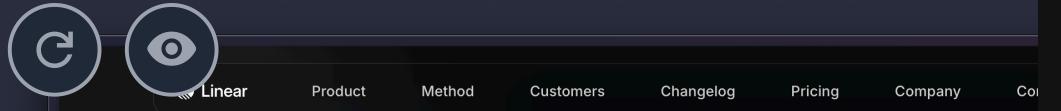


font metrics to the rescue

credits to **Katie Hempenius**  KHMPENIUS

Ascent	1050
Descent	350
Line gap	100
EM size	1000
Line height @ 100px	150

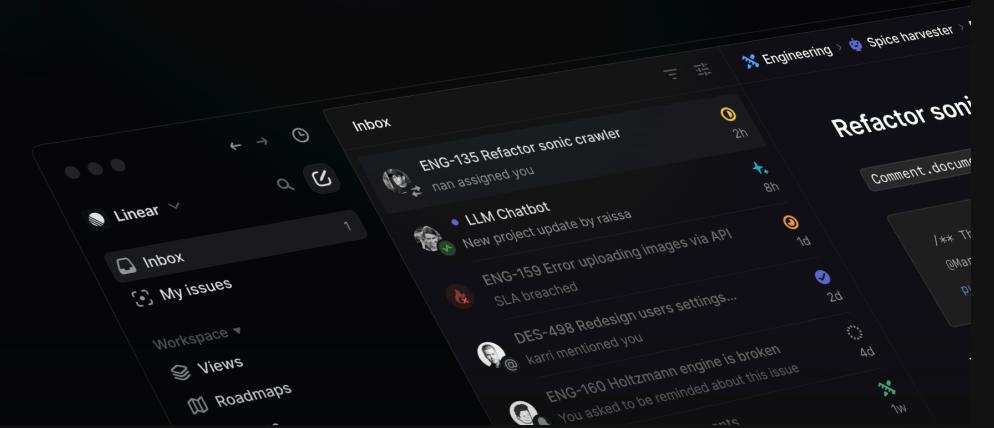
```
h1 {  
  font-family: 'Poppins', poppins-fallback;  
  font-size: 100px;  
}  
  
@font-face {  
  font-family: poppins-fallback;  
  src: local("Arial"), local("Verdana");  
  ascent-override: 105%;  
  descent-override: 35%;  
  line-gap-override: 10%;  
}
```



font metrics to the rescue

credits to **Katie Hempenius** 

Ascent	1050
Descent	350
Line gap	100
EM size	1000
Line height @ 100px	150



making it repeatable

seek-oss/capsize - typography in CSS

```
import { createStyleObject } from '@capsizecss/core'  
import arialMetrics from '@capsizecss/metrics/arial'  
  
const capsizeStyles = createStyleObject({  
  fontSize: 16,  
  leading: 24,  
  fontMetrics: arialMetrics,  
})
```

making it extensible

unjs/unplugin - unified bundler plugin architecture.

- ◆ webpack
- ◆ rollup
- ◆ vite
- ◆ esbuild
- ◆ rspack
- ◆ ... rolldown, farm

```
import { createUnplugin } from 'unplugin'

export default createUnplugin(() => {
  return {
    name: 'i-love-nuxt',
    enforce: 'pre',
    transformInclude: id => id.endsWith('.vue'),
    transform (code) {
      return code.replace(/<!--.*-->g, '')
    }
  }
})
```

introducing fontaine

- ◆ bundler-agnostic · astro, docusaurus, vite, etc
- ◆ pure CSS · lightweight
- ◆ build-time · zero runtime overhead

The screenshot shows a GitHub repository page for 'fontaine'. The repository is public and has 3 branches and 14 tags. The main branch is selected. A list of 390 commits is displayed, all made by 'danielroe' and pushed 1 hour ago. The commits are: 'chore: lint' (green checkmark), '.github' (chore: migrate to antfu eslint config and...), '.husky' (chore: initial commit), 'playground' (chore: migrate to antfu eslint config and...), 'src' (chore: migrate to antfu eslint config and...), 'test' (chore: lint), '.editorconfig' (chore: initial commit), '.gitignore' (chore: initial commit), 'CODE_OF_CONDUCT.md' (chore: initial commit), 'LICENCE' (chore: initial commit), and 'README.md' (chore: migrate to antfu eslint config and...). The GitHub interface includes a sidebar with icons for issues, pull requests, discussions, actions, and settings.

Commit	Message	Time Ago
chore: lint	✓	32b2c36 · 1 hour ago
.github	chore: migrate to antfu eslint config and...	4 months ago
.husky	chore: initial commit	2 years ago
playground	chore: migrate to antfu eslint config and...	4 months ago
src	chore: migrate to antfu eslint config and...	4 months ago
test	chore: lint	1 hour ago
.editorconfig	chore: initial commit	2 years ago
.gitignore	chore: initial commit	2 years ago
CODE_OF_CONDUCT.md	chore: initial commit	2 years ago
LICENCE	chore: initial commit	2 years ago
README.md	chore: migrate to antfu eslint config and...	4 months ago

Daniel Roe

daniel@roe.dev

🐦 @danielcroe

✉️ @daniel@roe.dev

Interested ... ?

- ♦ check out [unjs/fontaine](#)
- ♦ read <https://docs.google.com/document/d/e/2PACX->