


magically optimising your fonts ✨





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





the philosophy of vite

polymorphic

- ◆ reimplementation of public asset loading
- ◆ chunk loading errors with `vite:preloadError`
- ◆ custom websocket handling



the challenge of web fonts

the challenge of web fonts

The screenshot shows the Google Fonts interface for the 'Roboto Static' font family. The page is titled 'Embed code' and features a navigation sidebar on the left with options like 'Fonts', 'Noto', 'Icons', 'Knowledge', and 'FAQ'. The main content area displays the font name 'Roboto Static' and a preview of the text 'Whereas recognit'. Below this, there are sections for selecting font styles, with 'Thin 100' and 'Thin 100 Italic' currently selected. A 'Change styles' button is visible. On the right side, there are tabs for 'Web' and 'Android'. The 'Web' tab is active, showing the embed code for the font, which includes a preconnect link to leapis.com and a link to the font family. Below the embed code, there is a section for 'Roboto: CSS classes' showing the CSS code for the font family and weight.

Google Fonts

← Embed code

Roboto Static

Whereas recognit

Thin 100

Thin 100 Italic

↓ Change styles

12 styles

Thin 100 Light 300 Regular 400

Web Android

<link> @import

Embed code in the <head> of

```
<link rel="preconnect" href="https://leapis.com">
<link rel="preconnect" href="https://leapis.com" crossorigin>
<link href="https://fonts.googleapis.com/css?family=Roboto:ital,wght@0,100;0,300;0,400;0,500;0,700;0,900;1,100;1,300;1,400;1,500;1,700;1,900" rel="stylesheet">
```

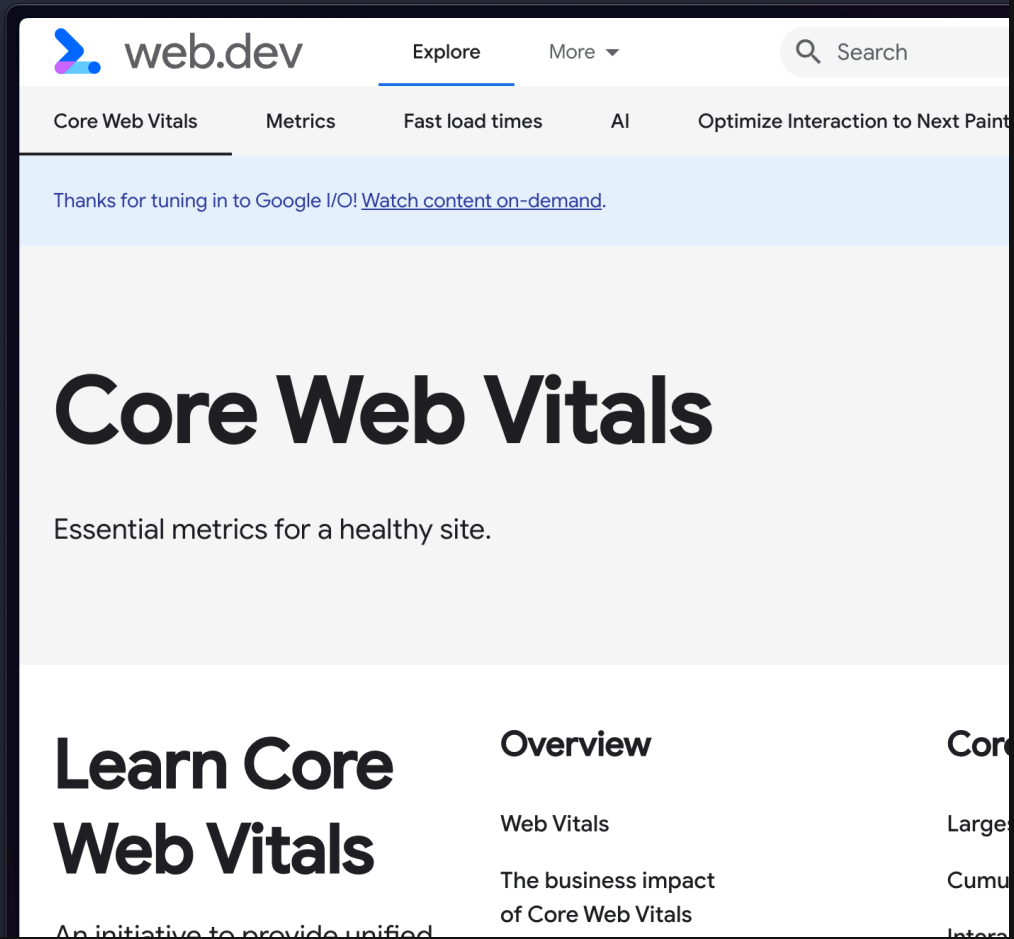
Roboto: CSS classes

```
.roboto-thin {
  font-family: "Roboto", sans-serif;
  font-weight: 100;
  font-style: normal;
}
```

core web vitals

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

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



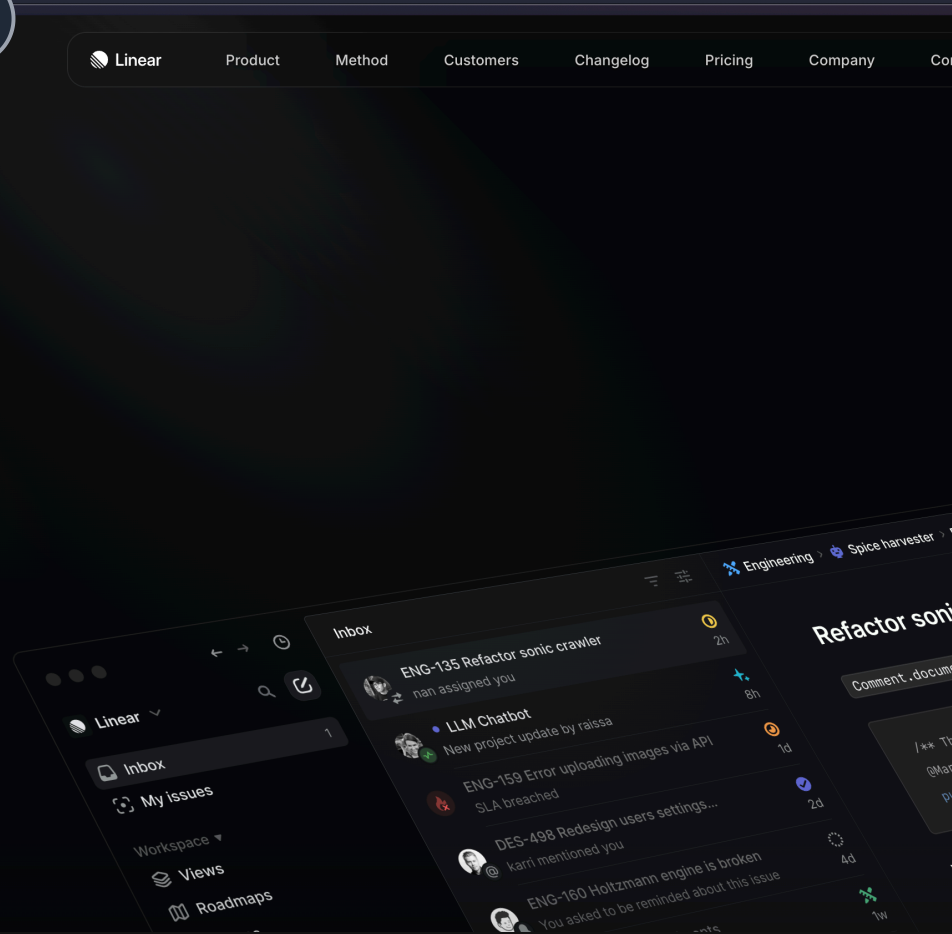


web fonts

... 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  KHEMPENIUS

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

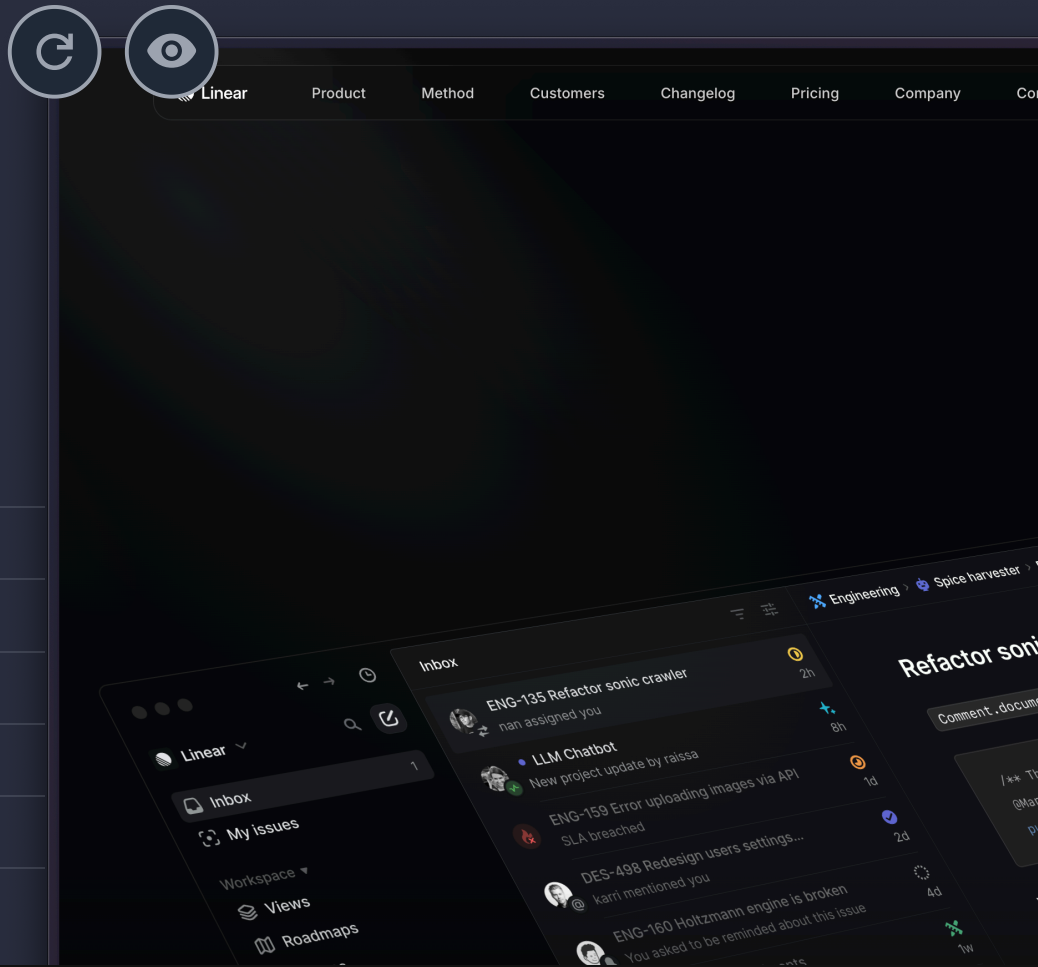
```
h1 {
  font-family: 'Poppins', poppins-fallback;
  font-size: 100px;
}

@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  KHEMPENIUS

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, '')
    }
  }
})
```

unjs/fontaine

- ✦ 🌐 bundler-agnostic · astro, docusaurus, vite, etc
- ✦ ⚡ pure CSS · lightweight
- ✦ 🔥 build-time · zero runtime overhead

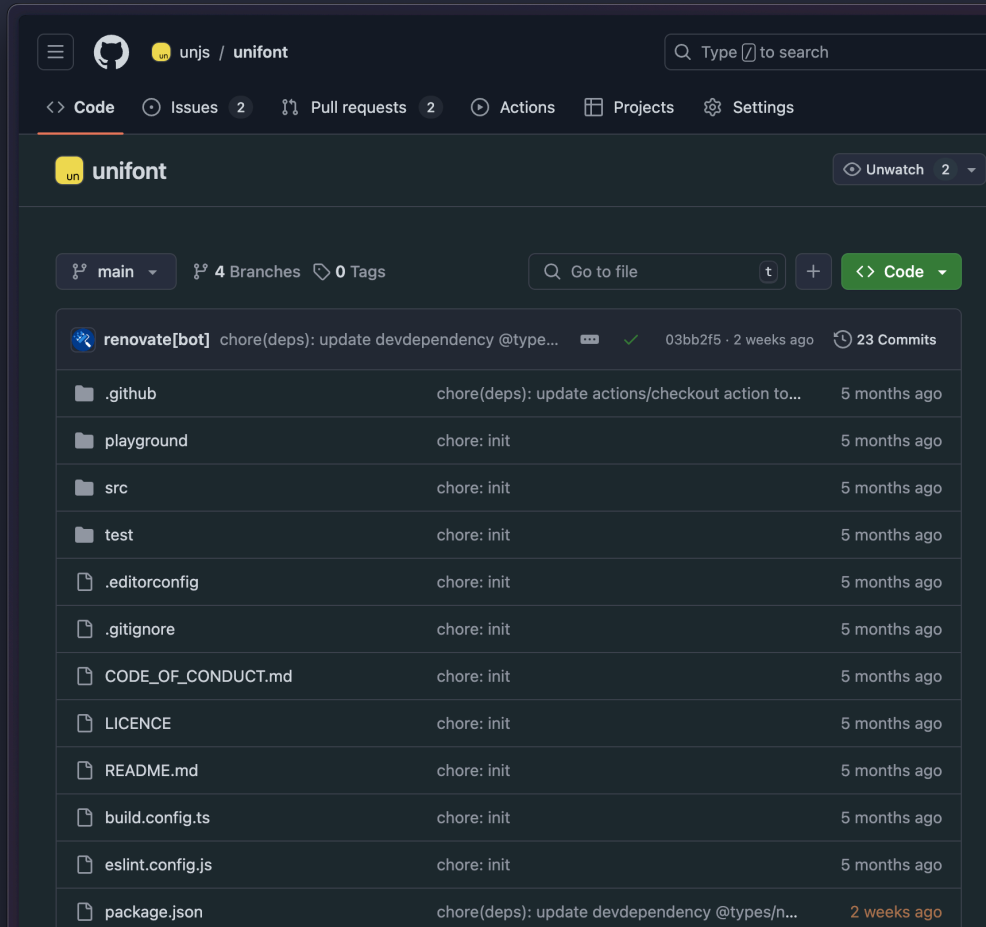
The screenshot displays the GitHub interface for the repository `unjs / fontaine`. The repository is public and has 12 issues, 3 pull requests, and 390 commits. The current view is the file browser for the `main` branch, showing a commit by `danielroe` with the message `chore: lint`. The commit includes the following files and folders:

File/Folder	Commit Message	Time
<code>.github</code>	<code>chore: migrate to antfu eslint config and...</code>	4 months ago
<code>.husky</code>	<code>chore: initial commit</code>	2 years ago
<code>playground</code>	<code>chore: migrate to antfu eslint config and...</code>	4 months ago
<code>src</code>	<code>chore: migrate to antfu eslint config and...</code>	4 months ago
<code>test</code>	<code>chore: lint</code>	1 hour ago
<code>.editorconfig</code>	<code>chore: initial commit</code>	2 years ago
<code>.gitignore</code>	<code>chore: initial commit</code>	2 years ago
<code>CODE_OF_CONDUCT.md</code>	<code>chore: initial commit</code>	2 years ago
<code>LICENCE</code>	<code>chore: initial commit</code>	2 years ago
<code>README.md</code>	<code>chore: migrate to antfu eslint config and...</code>	4 months ago

unjs/unifont

- ✦ 🧱 font provider APIs
- ✦ ⚡ caching and lookup mechanisms
- ✦ ... and more

open sourced today! 



unjs / unifont

Code Issues 2 Pull requests 2 Actions Projects Settings

un unifont Unwatch 2

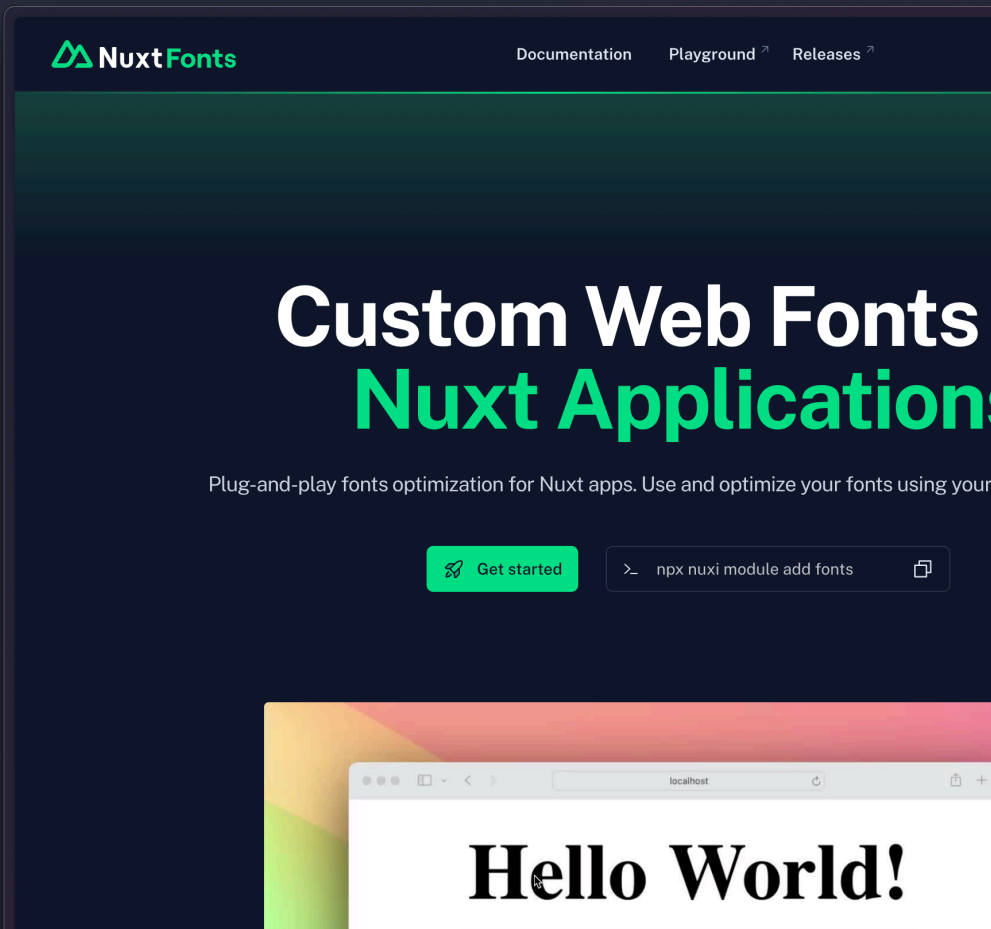
main 4 Branches 0 Tags Go to file Code

renovate[bot] chore(deps): update devdependency @type... 03bb2f5 · 2 weeks ago 23 Commits

📁 .github	chore(deps): update actions/checkout action to...	5 months ago
📁 playground	chore: init	5 months ago
📁 src	chore: init	5 months ago
📁 test	chore: init	5 months ago
📄 .editorconfig	chore: init	5 months ago
📄 .gitignore	chore: init	5 months ago
📄 CODE_OF_CONDUCT.md	chore: init	5 months ago
📄 LICENCE	chore: init	5 months ago
📄 README.md	chore: init	5 months ago
📄 build.config.ts	chore: init	5 months ago
📄 eslint.config.js	chore: init	5 months ago
📄 package.json	chore(deps): update devdependency @types/n...	2 weeks ago

nuxt/fonts

- ✦ ✨ zero config required
- ✦ 🙋 privacy first
- ✦ ⚡ performance optimised



how it works

```
<template>  
  <h1> Hello World </h1>  
</template>
```

```
<style scoped>  
h1 {  
  font-family: 'Poppins', sans-serif;  
}  
</style>
```

how it works

```
@font-face {
  font-family: 'Poppins';
  src: local("Poppins Regular"), local("Poppins"),
       url("/_fonts/<hash>.woff2") format(woff2);
  font-display: swap;
  unicode-range: U+0100-02AF,U+0304,<more>;
  font-weight: 400;
  font-style: normal;
}

@font-face {
  font-family: "Poppins Fallback: Arial";
  src: local("Arial");
  size-adjust: 112.1577%;
  ascent-override: 93.6182%;
  descent-override: 31.2061%;
  line-gap-override: 8.916%;
}

h1 {
  font-family: 'Poppins', 'Poppins Fallback: Arial', sans-serif;
}
```

Daniel Roe
daniel@roe.dev

🐦 @danielcroe

🐙 @daniel@roe.dev

Interested ... ?

- ◆ check out the docs on nuxt.com and fonts.nuxt.com
- ◆ follow [@nuxt_js](https://twitter.com/nuxt_js) on Twitter or [@nuxt@webtoo.ls](https://mstdn.social/@nuxt) on Mastodon
- ◆ join chat.nuxt.dev to discuss
- ◆ and a final offer 🙏

roe.dev/chat

