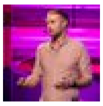
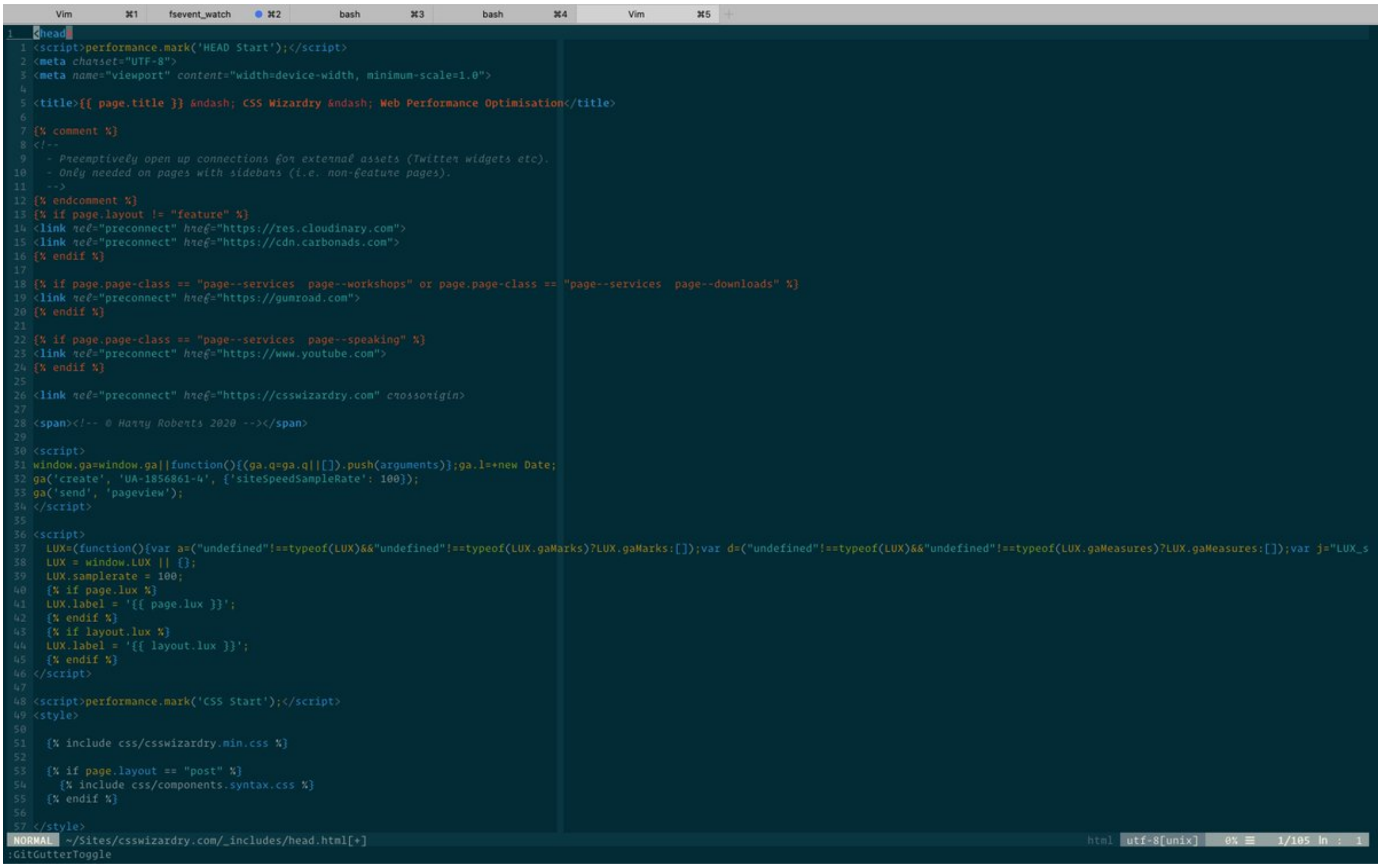
Twitter Thread by Harry Roberts



Harry Roberts
@csswizardry

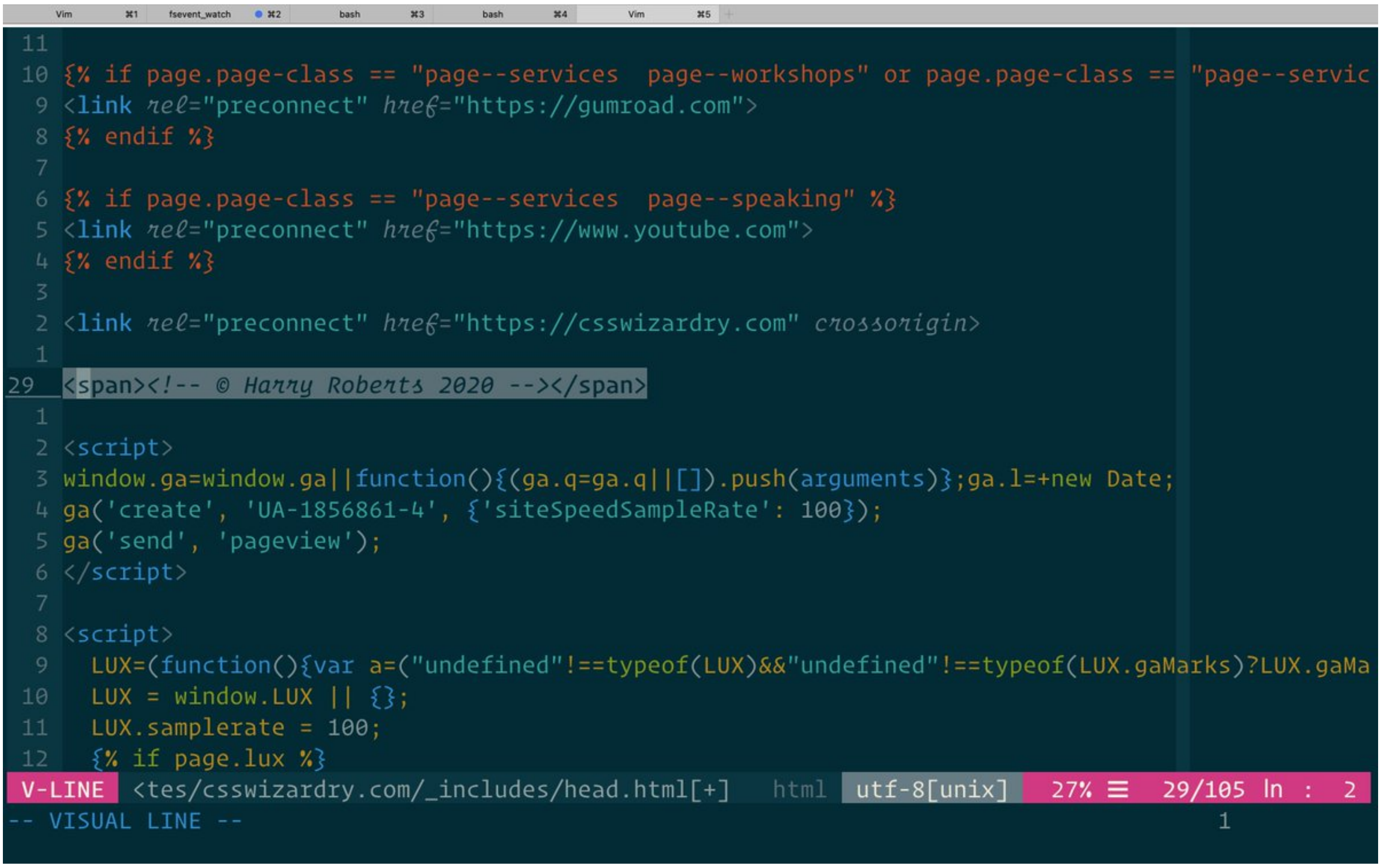
■ Two of my most- and first-used checks when doing a performance audit are surprisingly old school: 1) Validate HTML 2) Disable JS.

Validate HTML? Yep. We haven't really cared about 'valid HTML' for valid HTML's sake for about a decade, but certain errors can actually be pretty significant. What's wrong with this picture?



```
<head>
<script>performance.mark('HEAD Start');</script>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, minimum-scale=1.0">

<title>{{ page.title }} &ndash; CSS Wizardry &ndash; Web Performance Optimisation</title>

{% comment %}
<!--
  - Preemptively open up connections for external assets (Twitter widgets etc).
  - Only needed on pages with sidebars (i.e. non-feature pages).
  -->
{% endcomment %}
{% if page.layout != "feature" %}
<link rel="preconnect" href="https://res.cloudinary.com">
<link rel="preconnect" href="https://cdn.carbonads.com">
{% endif %}

{% if page.page-class == "page--services  page--workshops" or page.page-class == "page--services  page--downloads" %}
<link rel="preconnect" href="https://gumroad.com">
{% endif %}

{% if page.page-class == "page--services  page--speaking" %}
<link rel="preconnect" href="https://www.youtube.com">
{% endif %}

<link rel="preconnect" href="https://csswizardry.com" crossorigin>

<span><!-- © Harry Roberts 2020 --></span>

<script>
window.ga=window.ga||function(){(ga.q=ga.q||[]).push(arguments)};ga.l=+new Date;
ga('create', 'UA-1856861-4', {'siteSpeedSampleRate': 100});
ga('send', 'pageview');
</script>

<script>
  LUX=(function(){var a=("undefined"!==typeof(LUX)&&"undefined"!==typeof(LUX.gaMarks)?LUX.gaMarks:[]);var d=("undefined"!==typeof(LUX)&&"undefined"!==typeof(LUX.gaMeasures)?LUX.gaMeasures:[]);var j="LUX_s
  LUX = window.LUX || {};
  LUX.samplerate = 100;
  {% if page.lux %}
  LUX.label = '{{ page.lux }}';
  {% endif %}
  {% if layout.lux %}
  LUX.label = '{{ layout.lux }}';
  {% endif %}
</script>

<script>performance.mark('CSS Start');</script>
<style>

  {% include css/csswizardry.min.css %}

  {% if page.layout == "post" %}
    {% include css/components.syntax.css %}
  {% endif %}

</style>
NORMAL  ~/Sites/csswizardry.com/_includes/head.html[+]            html  utf-8[unix]  0% ☰  1/105 ln :  1
:GitGutterToggle
```

It's this lil' fella right here. isn't allowed in the , so when the browser encounters the , it assumes the should have been closed already.



```
{% if page.page-class == "page--services  page--workshops" or page.page-class == "page--servic
<link rel="preconnect" href="https://gumroad.com">
{% endif %}

{% if page.page-class == "page--services  page--speaking" %}
<link rel="preconnect" href="https://www.youtube.com">
{% endif %}

<link rel="preconnect" href="https://csswizardry.com" crossorigin>

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ga('send', 'pageview');
</script>

<script>
  LUX=(function(){var a=("undefined"!==typeof(LUX)&&"undefined"!==typeof(LUX.gaMarks)?LUX.gaMa
  LUX = window.LUX || {};
  LUX.samplerate = 100;
  {% if page.lux %}
 V-LINE  <tes/csswizardry.com/_includes/head.html[+]   html  utf-8[unix]   27% ≡  29/105 ln :  2
-- VISUAL LINE --                                                                              1
```
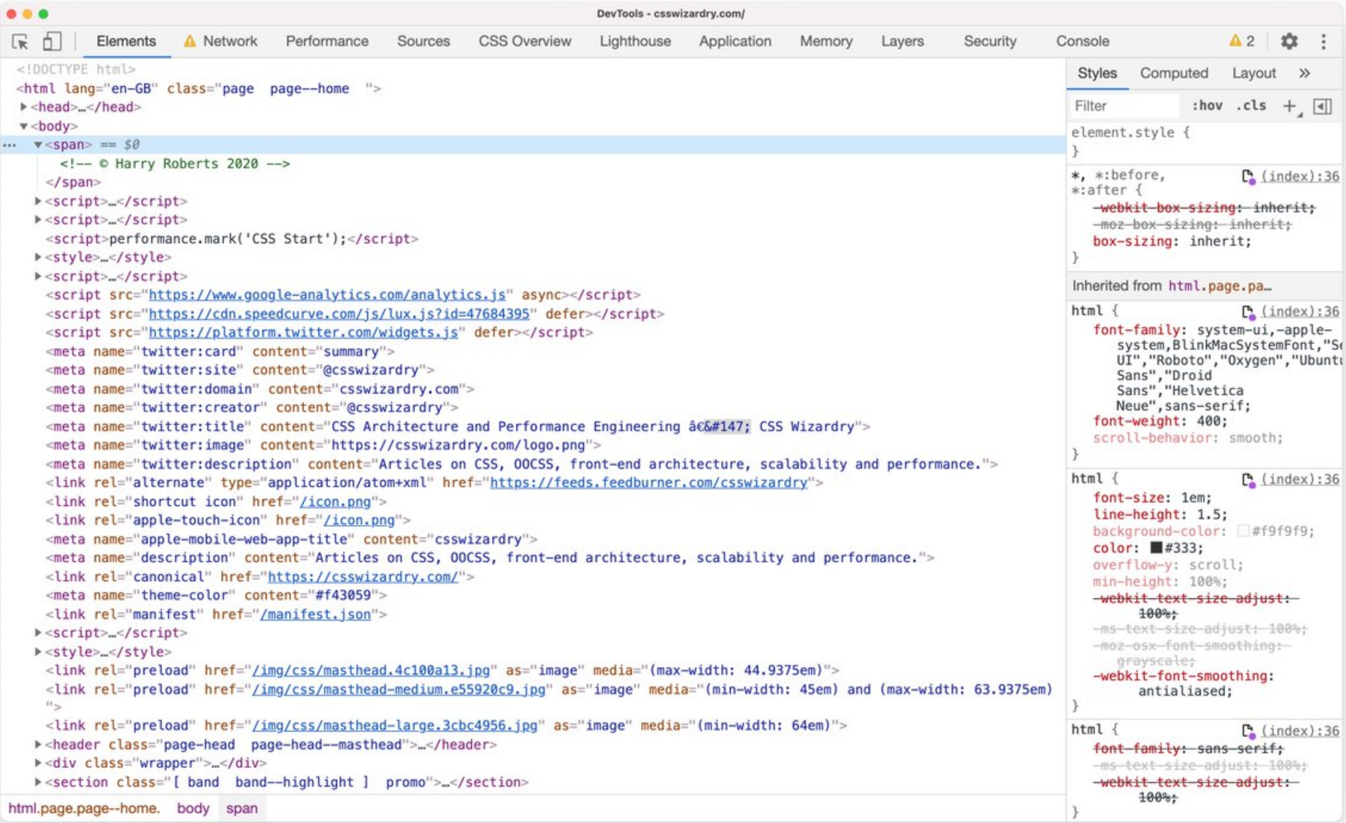

This is a feature. This is what allows us to omit certain closing tags like

, , , and—you guessed it!—. The appearance of certain opening tags implies the closing of certain preceding ones.

The practical upshot of which is that non- elements early-terminate the tags, pushing all of your important resources into the . Oops!



```
<!DOCTYPE html>
<html lang="en-GB" class="page  page--home  ">
 ▶<head>…</head>
 ▼<body>
...  ▼<span> == $0
       <!-- © Harry Roberts 2020 -->
     </span>
   ▶<script>…</script>
   ▶<script>…</script>
     <script>performance.mark('CSS Start');</script>
   ▶<style>…</style>
   ▶<script>…</script>
     <script src="https://www.google-analytics.com/analytics.js" async></script>
     <script src="https://cdn.speedcurve.com/js/lux.js?id=47684395" defer></script>
     <script src="https://platform.twitter.com/widgets.js" defer></script>
     <meta name="twitter:card" content="summary">
     <meta name="twitter:site" content="@csswizardry">
     <meta name="twitter:domain" content="csswizardry.com">
     <meta name="twitter:creator" content="@csswizardry">
     <meta name="twitter:title" content="CSS Architecture and Performance Engineering â€&#147; CSS Wizardry">
     <meta name="twitter:image" content="https://csswizardry.com/logo.png">
     <meta name="twitter:description" content="Articles on CSS, OOCSS, front-end architecture, scalability and performance.">
     <link rel="alternate" type="application/atom+xml" href="https://feeds.feedburner.com/csswizardry">
     <link rel="shortcut icon" href="/icon.png">
     <link rel="apple-touch-icon" href="/icon.png">
     <meta name="apple-mobile-web-app-title" content="csswizardry">
     <meta name="description" content="Articles on CSS, OOCSS, front-end architecture, scalability and performance.">
     <link rel="canonical" href="https://csswizardry.com/">
     <meta name="theme-color" content="#f43059">
     <link rel="manifest" href="/manifest.json">
   ▶<script>…</script>
   ▶<style>…</style>
     <link rel="preload" href="/img/css/masthead.4c100a13.jpg" as="image" media="(max-width: 44.9375em)">
     <link rel="preload" href="/img/css/masthead-medium.e55920c9.jpg" as="image" media="(min-width: 45em) and (max-width: 63.9375em)
     ">
     <link rel="preload" href="/img/css/masthead-large.3cbc4956.jpg" as="image" media="(min-width: 64em)">
   ▶<header class="page-head  page-head--masthead">…</header>
   ▶<div class="wrapper">…</div>
   ▶<section class="[ band  band--highlight ]  promo">…</section>
```

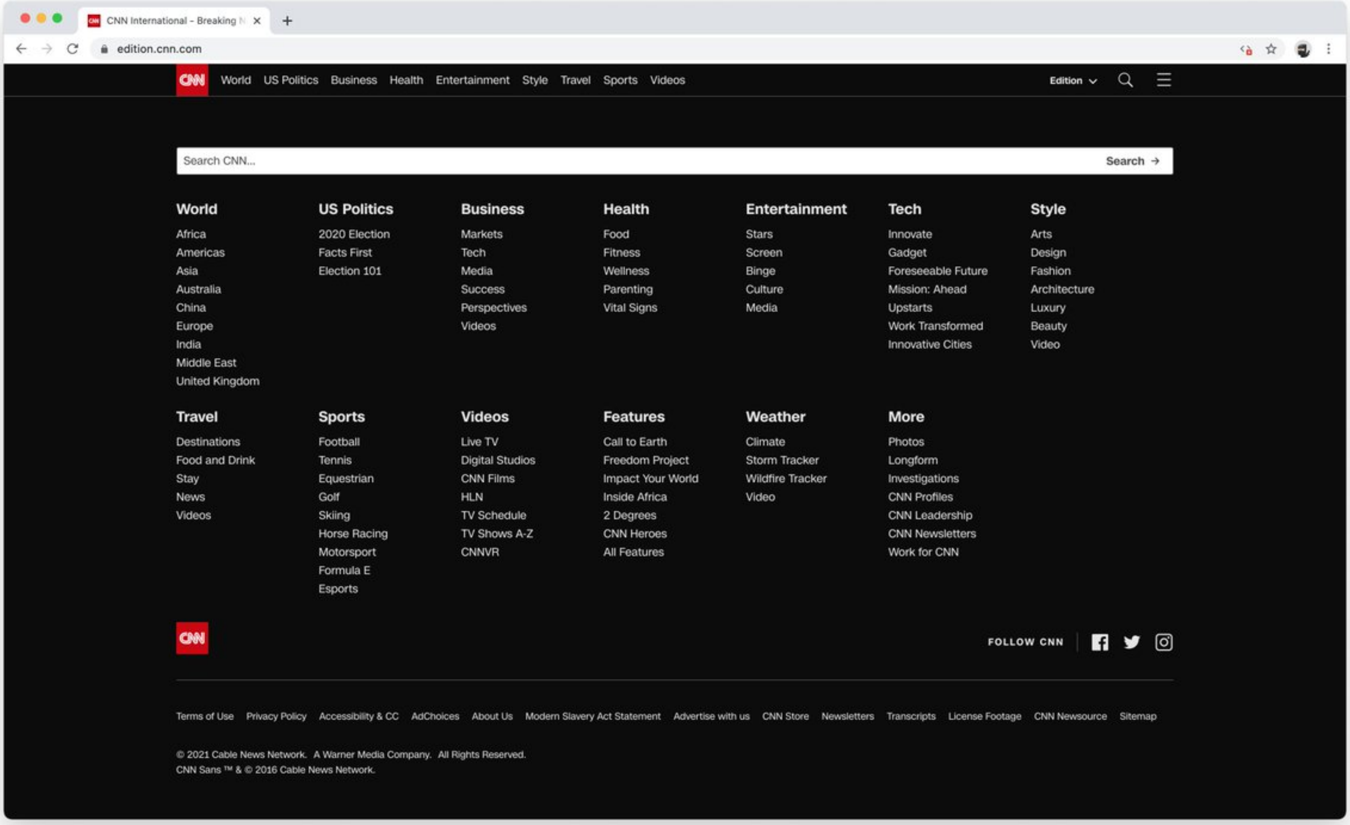
```
element.style {
}
*, *:before,                              (index):36
*:after {
   ~~-webkit-box-sizing: inherit;~~
   ~~-moz-box-sizing: inherit;~~
   box-sizing: inherit;
}
Inherited from html.page.pa…
html {                                    (index):36
   font-family: system-ui,-apple-
      system,BlinkMacSystemFont,"Se
      UI","Roboto","Oxygen","Ubuntu
      Sans","Droid
      Sans","Helvetica
      Neue",sans-serif;
   font-weight: 400;
   scroll-behavior: smooth;
}
html {                                    (index):36
   font-size: 1em;
   line-height: 1.5;
   background-color: □#f9f9f9;
   color: ■#333;
   overflow-y: scroll;
   min-height: 100%;
   ~~-webkit-text-size-adjust:
         100%;~~
   ~~-ms-text-size-adjust: 100%;~~
   ~~-moz-osx-font-smoothing:
      grayscale;~~
   -webkit-font-smoothing:
         antialiased;
}
html {                                    (index):36
   ~~font-family: sans-serif;~~
   ~~-ms-text-size-adjust: 100%;~~
   ~~-webkit-text-size-adjust:
         100%;~~
}
```

Disable JavaScript? I think building sites for people who’ve turned JS off is an expensive waste of time: they’ve turned it off! Leave them to it. But! I do feel it’s vital that we can fail reasonably elegantly when JS fails (and it will).

I strongly hold @adactio and @jaffathecake’s respective (and paraphrased) opinions about JS: ‘How well does it fail?’ and ‘All your users are non-JS until your JS is downloaded and run’.

From a performance perspective, I don’t want to see your core content buried away in JS. JS is slower than HTML. If you need JS to display core content, you’re on the slow path. The quickest way for me to ascertain whether content is coming out of JS? Disable it!

Do I care that CNN doesn’t work with JS disabled? Not necessarily. But immediately I can see that their content is reliant on the successful download and execution of JS. This is always going to be slower than having it in the HTML—the first (and successful) response.



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