

Learning to Love JavaScript

by Tara Vancil

September 13, 2019
Strange Loop, St. Louis MO

JS

Today's schedule

I will talk at you for 40 minutes. I'm sorry.

**Please save your
questions**

You'll walk away with...



a deeper appreciation for the feat of human cooperation that is the World Wide Web, and how JavaScript became one of the Web's most important threads

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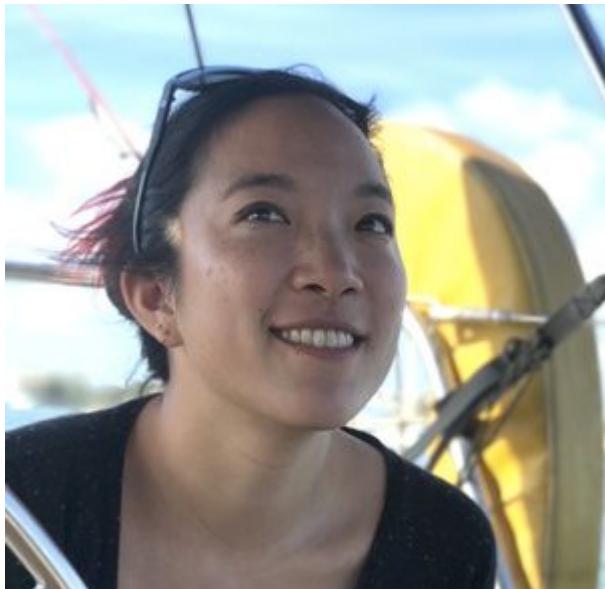
opinions about testing, deploying, or monitoring code



cool design patterns that you can apply at your job next week

Observability: Superpowers for Developers

Christine Yen - ST Theater



"Who wants to spend time dreaming about the ability to leap tall buildings with a single bound, when we can recast stories we live day to day as powers of our own... and improve our own lives in a practical way? When observability is folded into the development process itself, it represents the potential for a beautifully virtuous cycle: production stops being just where our development code runs into issues, and it becomes where part of our development process lives."

Tara Vancil

Software engineer

- taravancil.com
- @taravancil
- Live in NYC

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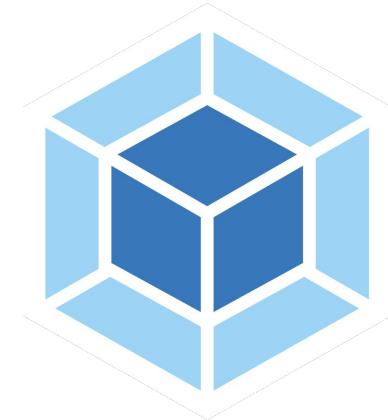


JS

CSS



HTML



SVG



node.js

css

HTML



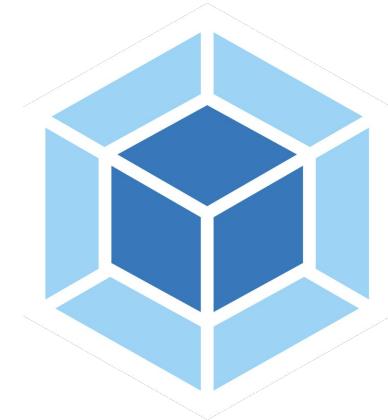
slack

JS

CSS



HTML

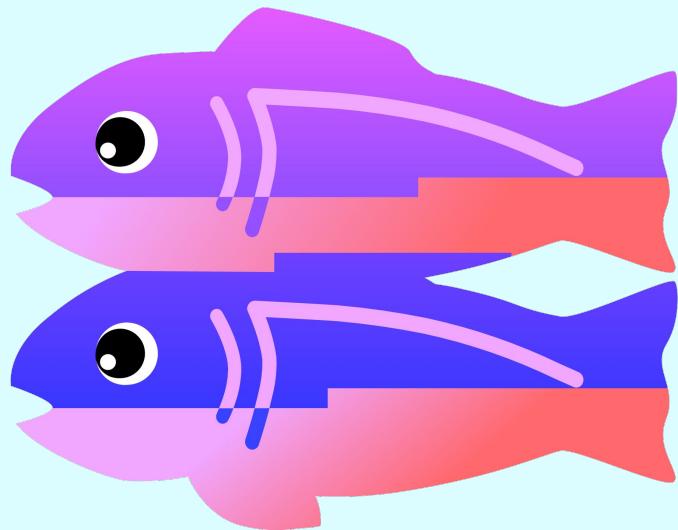


SVG



node.js

glitch.com



The screenshot shows the Glitch web interface. At the top, there's a purple header bar with three white dots on the left and a user profile icon on the right. Below the header is a yellow navigation bar with a back arrow, a search bar containing 'README.md', and a magnifying glass icon. The main workspace has a light gray background.

Project Details:

- Name:** elastic-cuckoo
- Status:** Show
- File:** README.md

File Explorer: On the left, a sidebar shows the project structure:

- assets
- README.md** (selected)
- index.html
- script.js
- style.css

Welcome to Glitch

Click **Show** in the header to see your app live. Updates to your code will instantly deploy and update live.

Glitch is the friendly community where you'll build the app of your dreams. Glitch lets you instantly create, remix, edit, and host an app, bot or site, and you can invite collaborators or helpers to simultaneously edit code with you.

[Find out more about Glitch.](#)

Your Project

[← README.md](#)

That's this file, where you can tell people what your cool website does and how you built it.

[← index.html](#)

Where you'll write the content of your website.

[← style.css](#)

CSS files add styling rules to your content.

[← script.js](#)

If you're feeling fancy you can add interactivity to your site with JavaScript.

[← assets](#)

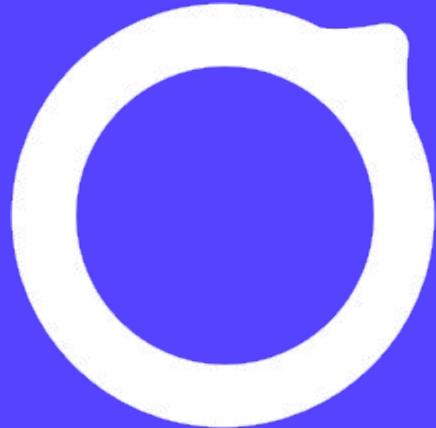
Drag in `assets`, like images or music, to add them to your project

Made by [Glitch](#)

\` o*)\`

At the bottom left are navigation icons: a double-left arrow, a 'Tools' button, and a double-right arrow. On the far right, there are two small user profile icons.

beakerbrowser.com



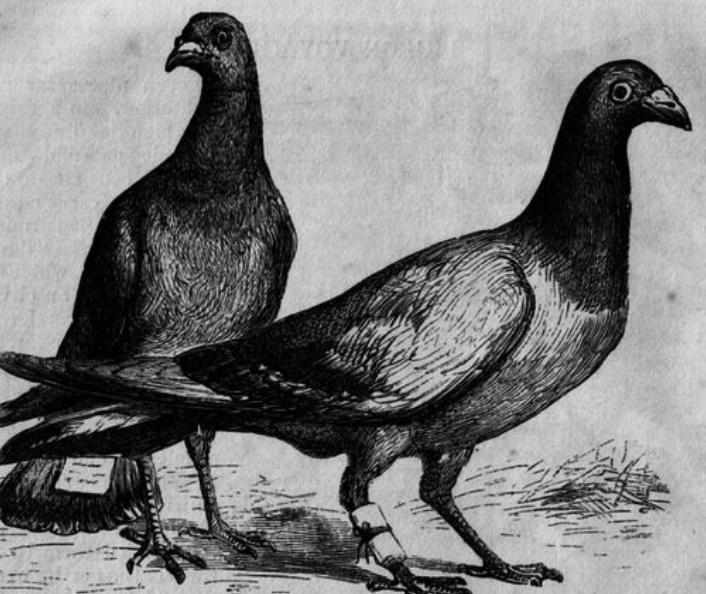
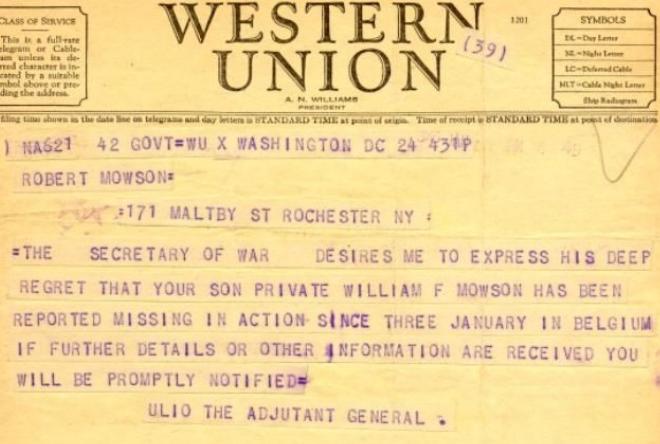
Library - PIXEL-EYEZ +

< > C beaker://library/dat://4bcecf2846c1a60320db246ec2d84acded2806cc566c4cebcdeb87ff4d9336f6/in... ☆ Ⓜ

PIXEL-EYEZ ▾ Files Network About dat://4bcecf..f6/ Ⓜ

. / index.html 147 lines | 4.47 kB Ⓜ Ⓛ

```
1  <!doctype html>
2  <html lang="en">
3
4  <head>
5      <meta charset="utf-8" />
6      <title>PIXEL-EYEZ</title>
7      <link rel="icon" type="image/png" href="/images/favicon.png" />
8      <link rel="stylesheet" href="/style.css" />
9  </head>
10
11 <body>
12 <div class="container">
13 <header class="flex">
14     <h1>Pixel-eyeze</h1>
15     
16 </header>
```



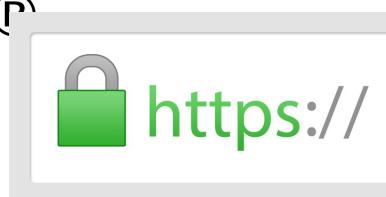


A standardized set of tools for transmitting
and interacting with documents



CSS

W3C[®]



**The Web is humanity's
shared language**

The Web is OPEN

**The Web is
DECENTRALIZED**

The Web is SHARED

I hope we can all agree



JavaScript is an imperfect programming language. All programming languages are imperfect, JavaScript maybe a bit more than the rest.

I hope we can all agree

- ✓ **JavaScript is an imperfect programming language.** All programming languages are imperfect, JavaScript maybe a bit more than the rest.
- ✓ **The Web is a miracle** and we ought to preserve it

I hope we can all agree

- ✓ **JavaScript is an imperfect programming language.** All programming languages are imperfect, JavaScript maybe a bit more than the rest.
- ✓ **The Web is a miracle** and we ought to protect it for future generations.
- ✓ **It's not that serious.** Debates about programming languages are all in good fun, but are secondary to what we build with them, and who we build for.

It doesn't make sense to judge JavaScript in a vacuum

Judging the merits of JavaScript solely as a programming language is missing the point, and to accurately weigh its place in the world, you must consider JavaScript beyond types, scope, and syntax

JavaScript's success is in part due to its flaws

JavaScript is the most popular programming language in the world, and continues to grow year after year. In isolation, its warts make it seem like a less-than programming language. in reality, they're part of why it's been successful

Programming, Scripting, and Markup Languages

All Respondents

JavaScript

67.8%

HTML/CSS

63.5%

SQL

54.4%

Python

41.7%

Java

41.1%

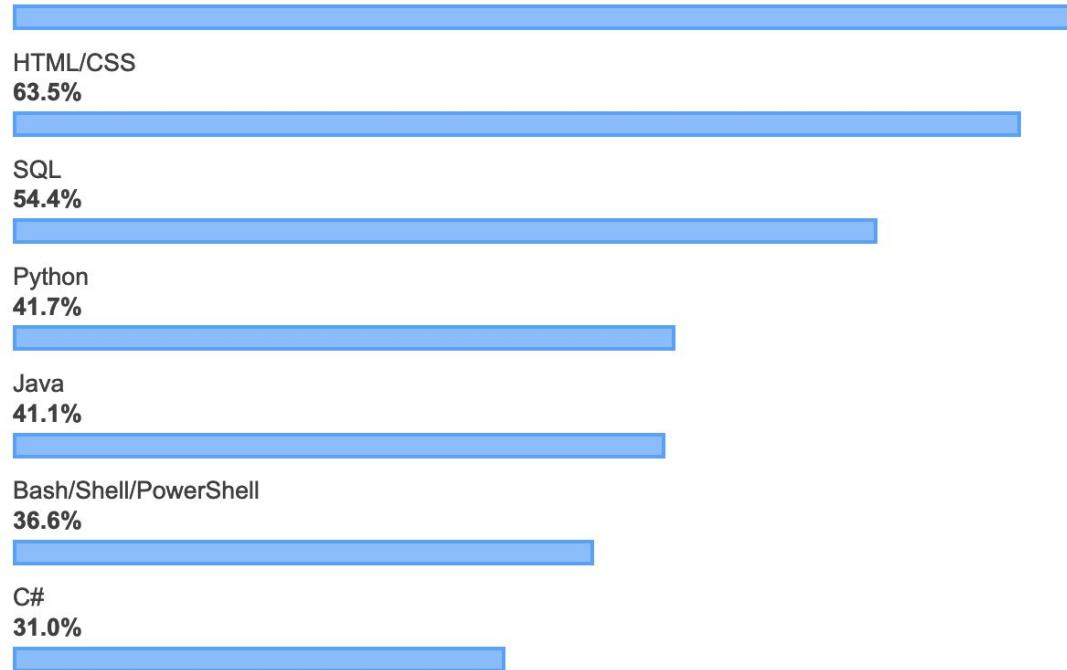
Bash/Shell/PowerShell

36.6%

C#

31.0%

DHD



**JavaScript was written
in 10 days**

(It's gonna have some problems)

JavaScript has unusual constraints

(Fixing those problems takes time)

What if...Haskell

- ? **Would the Web have become the canvas for creativity it is today?**
- ? **Would the Web be used in schools to introduce kids to programming?**
- ? **Would we see the same shared commitment to preserving this collective space?**

Principle of least power

*Computer Science spent the last forty years making languages which were as powerful as possible. Nowadays we have to appreciate the reasons for **picking not the most powerful solution but the least powerful**. The less powerful the language, the more you can do with the data stored in that language. If you write it in a simple declarative form, anyone can write a program to analyze it.gramming language, in reality, they're part of why it's been successful*

Tim Berners Lee, 1998

"Any application that can be written in JavaScript, will be written in JavaScript"

- Jeff Atwood, founder of StackOverflow/a person who is wrong about unions



Jeff Atwood 
@codinghorror



I will never understand the desire to "unionize" in tech.
Why should rich people unionize? So they can get ..
uh.. even more money?

5:42 PM · Sep 12, 2019

Most tech workers are not rich! Many don't even have benefits!



Jeff Atwood 
@codinghorror

Collective action is a powerful tool to demand executives act in the best interest of the planet, and the people who live here!

I will never understand the desire to "unionize" in tech.
Why should rich people unionize? So they can get ..
uh.. even more money?

5:42 PM · Sep 12, 2019

Your boss doesn't love you!

The good times might not last!

[techworkerscoalition.org!](http://techworkerscoalition.org)

**The Web is a mess, but
that's to be expected**

You gotta have hope

BigInt

BigInt: arbitrary-precision integers in JavaScript

- Correctly perform integer arithmetic without overflowing
- BigInt could form the basis of an eventual BigDecimal implementation. This would be useful to represent sums of money with decimal precision, and to accurately operate on them
- This means we'll be able to remove libraries and reduce parse + compile time)

Let's Encrypt



A free, automated, transparent Certificate Authority, run for the public's benefit

- Free certificates = more HTTPS!
- Joint effort to benefit the community, beyond the control of any one organization
- Transparent: every certificate issued or revoked is recorded and viewable by the public

All the cool shit being built on the Web every single day

Seriously, there's so much of it

Get Involved



The Web needs you!

Standardization of the general purpose, cross platform, vendor-neutral programming language ECMAScript (JavaScript).

This includes the language syntax, semantics, and libraries and complementary technologies that support the language.

One World, One Language

Jenn Schiffer

There sure are a lot of languages.

—Jenn Schiffer

It was September 2003 when I began my undergraduate studies in computer science. Having chosen a liberal arts school, I was required to select a number of general education course requirements that lived outside the realm of my major. One of those requirements was two foreign language courses. When I inquired about using Java to fulfill that sequence, my request was immediately shut down. “You have to pick a real foreign language, like Spanish or French,” my undergraduate advisor told me.

Perhaps I should have asked about JavaScript.