How to cross the JavaScript Technology Jungle in 2017

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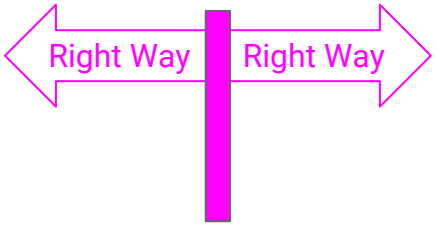
JS Ecosystem (Jungle)

JS Ecosystem … is huge

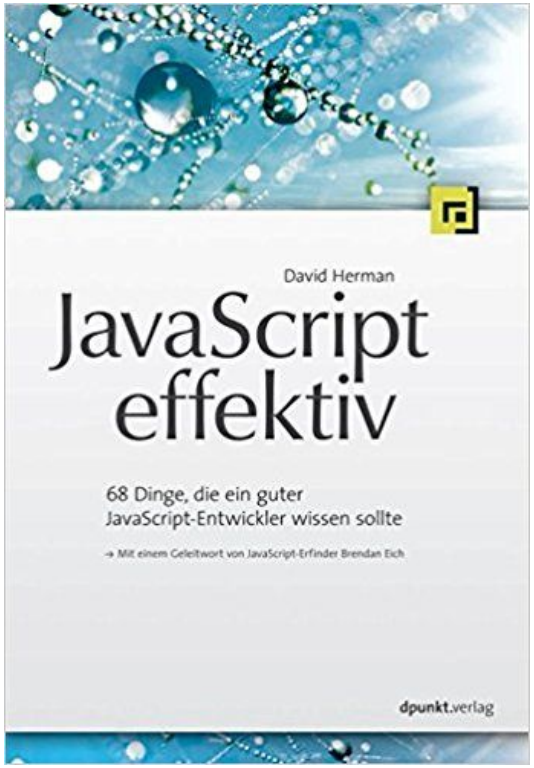
- Libraries JQuery, underscore, lodash,...
- Frameworks Angular, Aurelia, emberJS, ExtJS,...
  - Specialized React, Vue, ...
- Task Runner Gulp, Grunt, …
  - Build Tools Browserify, Webpack, …
- Testing Jasmine, Jest, Mocha, Chai, ...
- Template Engines handlebars, mustache, jade/pug, ...
- Frontend Patterns MVC, MVVM,...
- State Handling Patterns Flux,...
- Frontend Architectures SPA, ROCA
- Rendering Approaches Client- / Service-Side, Combined

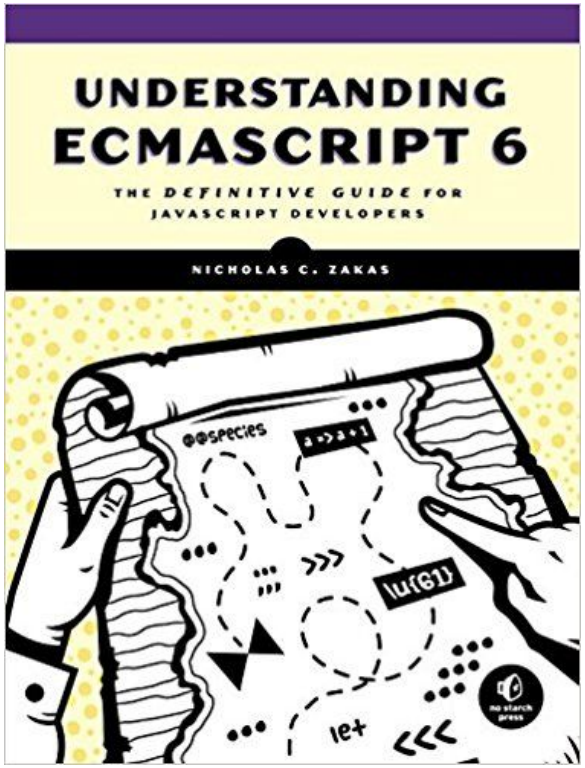
Guideposts



- How it feels to learn JavaScript in 2016
- How it feels to learn JavaScript in 2017
- Modern Web Frontend Architecture Overview
- Frontend Developer Interview Questions
- Awesome List Frontend Development
- developer.mozilla.org
- ECMA Discussion Archive
- Web API Overview
- TodoMVC

Books


David Herman
JavaScript effektiv
68 Dinge, die ein guter JavaScript-Entwickler wissen sollte
→ Mit einem Geleitwort von JavaScript-Erfinder Brendan Eich
dpunkt.verlag


UNDERSTANDING ECMASCRIPT 6
THE DEFINITIVE GUIDE FOR JAVASCRIPT DEVELOPERS
NICHOLAS C. ZAKAS
no starch press


Jürgen Wolf
HTML5 und CSS3
Das umfassende Handbuch
HTML5 und CSS3
Moderne Webseiten programmieren und gestalten
Grundlegende Einführung in JavaScript, jQuery und Ajax
Grafiken, Video, Audio, HTML5-APIs, YAML, Bootstrap u. v. m.
2., aktualisierte und erweiterte Auflage
Rheinwerk Computing

Youtube

[JSCONF]

[FUNFUN FUNCTION]

[ViennaJS]

[The Coding Train]

[Mozilla Hacks]

[Chrome Developers]

My List of Interesting Technologies 2017ish

- TypeScript typed JavaScript that scales
- Virtual Dom fast DOM manipulations
- Vue.js View Layer Framework
- Service Worker your JS Frontend “concierge”
- Progressive Web Apps Web, Mobile, Desktop

The Progressive JavaScript Framework

GET STARTED GITHUB

Approachable

Already know HTML, CSS and JavaScript? Read the guide and start building things in no time!

Versatile

Simple, minimal core with an incrementally adoptable stack that can handle apps of any scale.

Performant

20kb min+gzip Runtime
Blazing Fast Virtual DOM
Minimal Optimization Efforts

https://vuejs.org/

Vue /vjuː/, like “view”

- Progressive User Interface Framework
  - Incrementally adoptable
  - MIT Licensed alternative to React
- Core centered around View-Layer
  - Declarative rendering, Virtual DOM
  - HTML Templates, JSX (optionally)
- Additional gears integrated with framework
  - vue-router, vuex (Flux Pattern)
- Easy to learn (JS, HTML, CSS)
- Great Documentation

Vue Demo

github.com/SaarJS/meetup-2017-09

Vue Links

- Guides and Docs
- The Majesty of Vue.js 2.0
- Awesome Vue
- Vue-Klare Konzepte, flexibel und Performant

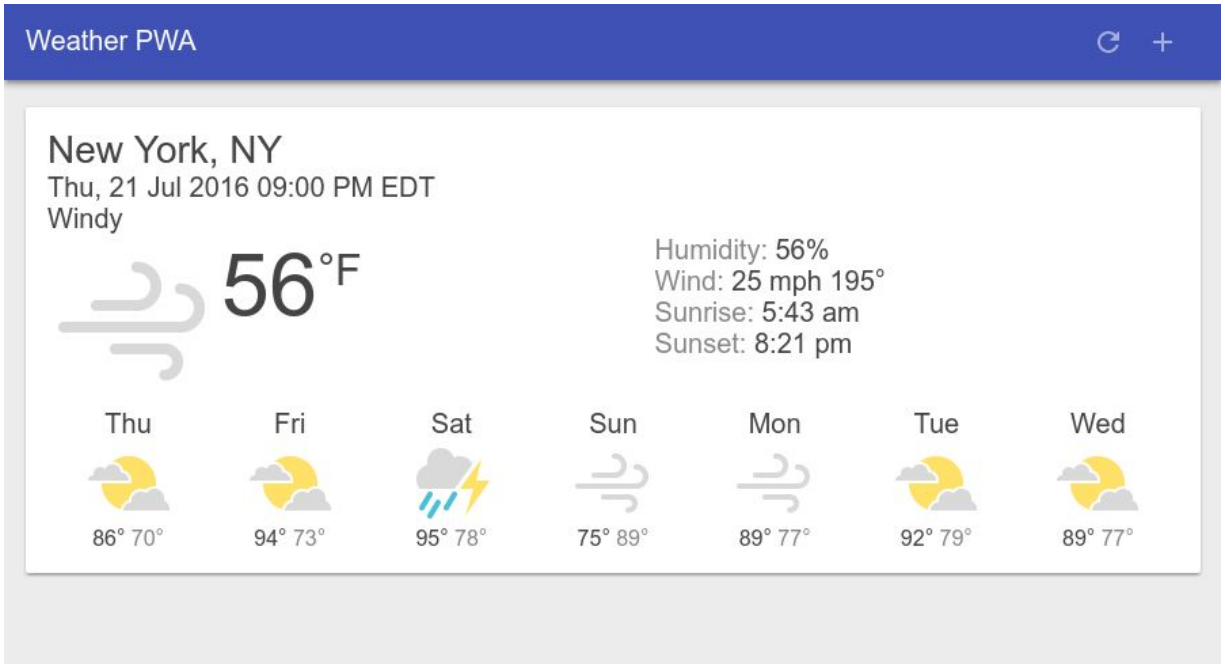
Progressive Web Apps

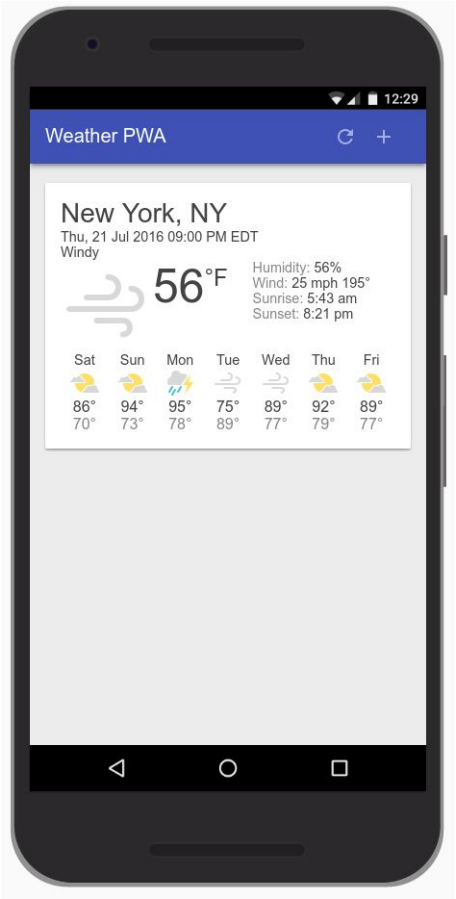
- What is a PWA?
  - “A Progressive Web App uses modern web capabilities to deliver an app-like user experience.”
- Service Workers
  - Lives in the background of your *Browser*
  - Can act like a “smart caching” Proxy-Server
  - Enables offline capabilities
- Web Manifest
  - Standard Format
  - Defines app metadata, Icons, resources etc.

PWA Features

- **Progressive** Works for every user, regardless of browser choice
- **Responsive** Fits any form factor: desktop, mobile, tablet, or whatever is next.
- **Connectivity independent** Enhanced with service workers to work offline or on low-fi networks.
- **App-like** Feels like an app, because the app shell model separates the app *functionality* from app *content* .
- **Fresh** Always up-to-date thanks to the service worker update process.
- **Safe** Served via HTTPS to prevent snooping and to ensure content hasn't been tampered with.
- **Discoverable** Identifiable by search engines via W3C app manifest & service worker registration scope
- **Re-engageable** Makes re-engagement easy through features like push notifications.
- **Installable** Allows users to add apps to their home screen without the hassle of an app store.
- **Linkable** Easily share the application via URL, does not require complex installation.

PWA Demo





https://github.com/SaarJS/meetup-2017-09

PWA Links

- Google PWA Tutorial
- Google PWA Checklist
- pwa.rocks
- Awesome Progressive Web Apps
- Progressive Web Apps Dev Summit

How to cross the JS Technology Jungle in 2017?

- I don’t know yet …
  - maybe 2018 I’ll have an answer ;-)
  - Really?!.... yep sorry.

- Let’s try to figure it out together \o/
- Thanks :)

API of the Month `URLSearchParams`

- `URLSearchParams` defines utility methods to work with URL query strings
- Performs encoding & decoding
- caniuse.com/#feat=urlsearchparams
  - No IE/ Edge … yet
  - qs library as an alternative

```
let usp = new URLSearchParams("param1=value1");
usp.append('param2', 'value2 ä and +plus');

usp.toString()
"param1=value1&param2=value2+%C3%A4+and+%2Bplus"
```