

Django and JavaScript

a long and complicated friendship

Jen Zajac
@jenofdoom

catalyst 



there are
two colours
in my head



Who am I?



**all my past
and futures**



First JS commit

“Added admin media to the
Django distribution”

adrianholovaty

16 Jul 2005

An abstract watercolor splash in shades of yellow and green, located in the bottom right corner of the slide. The colors blend together, with some darker green areas and lighter yellow areas, creating a textured, artistic effect.

62% of devs use some JS

According to the

StackOverflow

developer

survey 2017



**somewhere
we will meet**



Interactivity!



web**apps** not web**sites**



JS history 2005 → 2010



JS history 2005 → 2010

ECMAScript 3

~~ECMAScript 4~~

ECMAScript 3.1 5

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JS history 2005 → 2010

jQuery

Dojo

MochiKit

YUI



JS history 2005 → 2010

How did we use
JS with Django
in this era?



JS history 2010 → 2015



JS history 2010 → 2015

Mustache

Handlebars

EJS

Jade

...loads more



JS history 2010 → 2015

Backbone.js

AngularJS

Ember.js

Knockout.js



JS history 2010 → 2015

How did we use
JS with Django
in this era?



Frontend build tooling?

Django Compressor

pow.gd/ZeWlgn

Django Pipeline

pow.gd/AOzVsV

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API driven frontends?

Django REST Framework
django-rest-framework.org

Tastypie

pow.gd/duxjDt

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JS history 2015 → now



JS history 2015 → now

ECMAScript 2015

a.k.a. ES6



JS history 2015 → now

ECMAScript 2015

a.k.a. ES6

transpilation!

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JS history 2015 → now

Angular 2

React + Redux

Vue

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JS history 2015 → now

Bower

npm

Yarn



JS history 2015 → now

Grunt

gulp

Browserify

Rollup

webpack



JS history 2015 → now

TypeScript

Flow



— interlude —
writing modern js



let and const instead of var

```
let foo = 'I have block scope';  
const bar = 'I have block scope  
and I cannot be reassigned';  
var baz = 'I have function or  
global scope';
```


String interpolation

```
let msg = 'Hello world';  
let text = `This string within  
backticks contains "quotes"  
which don't need to be escaped.  
It can be multiline. ${msg}`;
```

Arrow functions

```
let myFunc = (arg1, arg2) => {  
    // normal function stuff  
};
```

```
let nPlusOne = n => n + 1;
```

Module imports

```
import 'mylib';
```

```
import { mylibSpecificThing }  
from 'mylib';
```

```
import * as util from 'mylib';
```

Classes

```
class Snek {  
    constructor(length=1, colour='blue') {  
        this.length = length;  
        this.colour = colour;  
    }  
  
    embiggen() {  
        this.length += 1;  
    }  
}
```

Also...

Maps, Generators, Promises and
Async/Await, Getters and Setters

See es6-cheatsheet at
pow.gd/JaQINR

**a delicate
balance**



**So how do we use JS
with Django now?**



So how do we use JS with Django now?

create-react-app

pow.gd/eJiXIj

plus...

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Less invasive build tooling

Django Webpack Loader

pow.gd/kvuUqd

or we can
go further...

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Decoupled f/e and b/e

Separate repositories

SPA f/e

DRF b/e

Automated
provisioning



— interlude — demo



everything in
its right place



Picking the right JS
library, framework
or pattern



**There is no one true answer –
Your Mileage May Vary**

but ask
these questions...

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Are you building a website or
are you building a webapp?



**Is your JS for decorative or
functional purposes?**



**Do you need batteries
included?**



**Is there business logic in your
JS code?**



**this is really
happening**



Node.js – the competition



**Are there any Django killer
Node.js apps?**



Not really...



The contenders

Sails.js

sailsjs.com

Meteor

meteor.com

KeystoneJS

keystonejs.com



Why “not really”

Smaller communities

Not as mature



So why use one?

One language!

First-class async support

Isomorphic render

Websockets

Microservices

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Django fights back...

Can't compete vs. one language

But:

- excellent docs
 - great community
 - maturity
- 
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Django with isomorphic render

stick with decoupled: next.js

learnnextjs.com

or

python-react

pow.gd/hjBLBp

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Django with websockets

Channels

pow.gd/geGyLr

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Django as a microservice

Django Microservices Made Easy

by Paul Hallett

pow.gd/FtGuWD

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where do we
go from here?



**Browser and JS functionality
just keeps on evolving**



**Django and JS continue to be
good friends!**



thanks.

