



DrupalCon

NASHVILLE **2018**
APRIL 9-13



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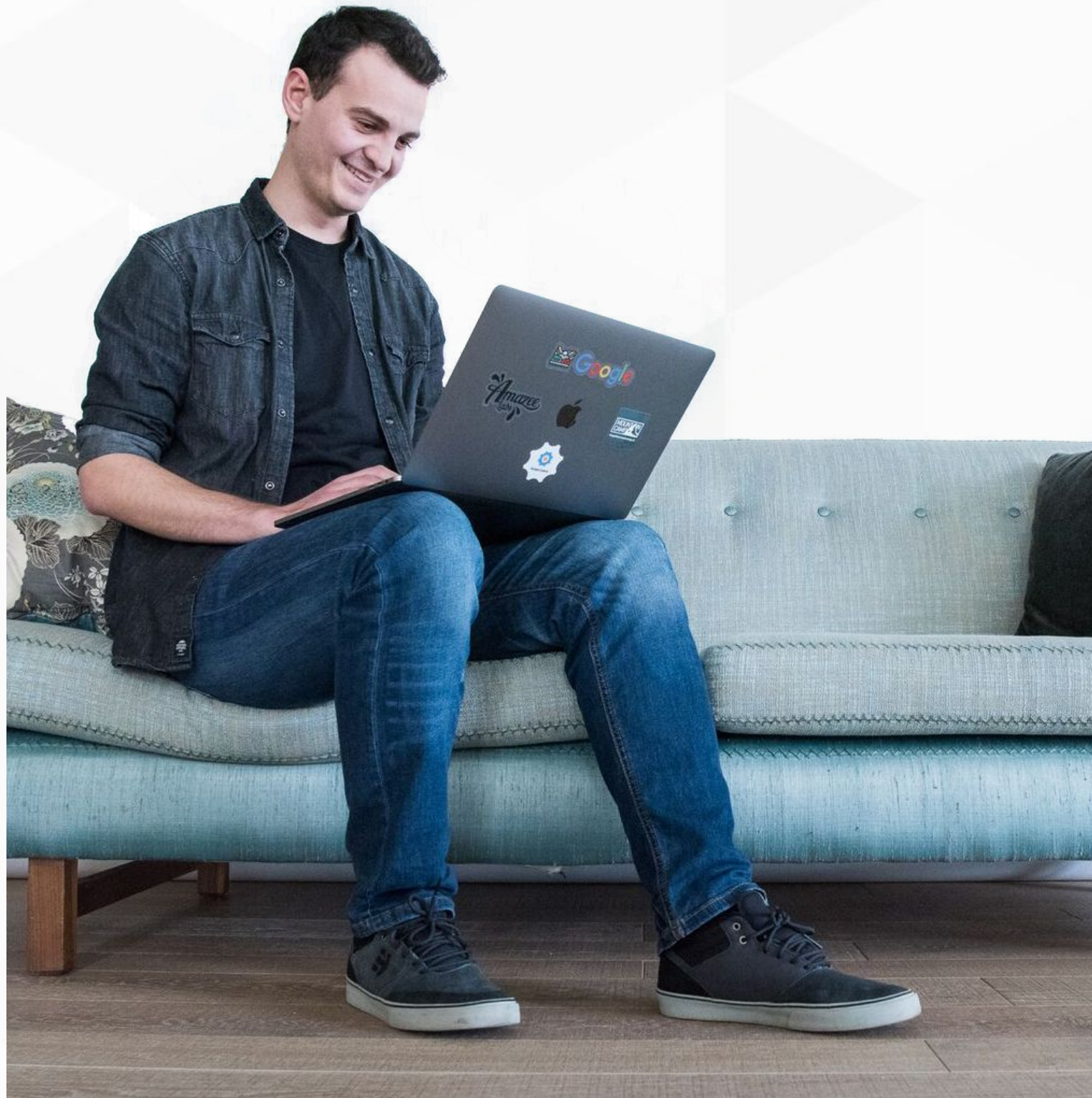
Push vs. Pull

GraphQL in Twig



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About me



Hi! :)

- Developer at Amazee Labs (Zurich, Switzerland)
- d.o.: [sasanikolic](#)
- *Twitter:* [@sasanikolic90](#)
- sasa.nikolic@amazee.com

Agenda

- Current “push” status
- Problem definition
- Decoupled Drupal
- GraphQL Twig
- Examples
- Keep in mind
- Questions



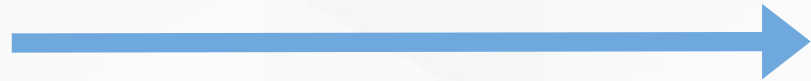
“Push” all data

Current status in D8

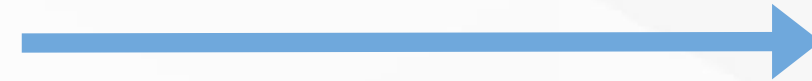
Current “Push” status



Drupal



Preprocessing



Twig
template

How to build a gallery?



First image

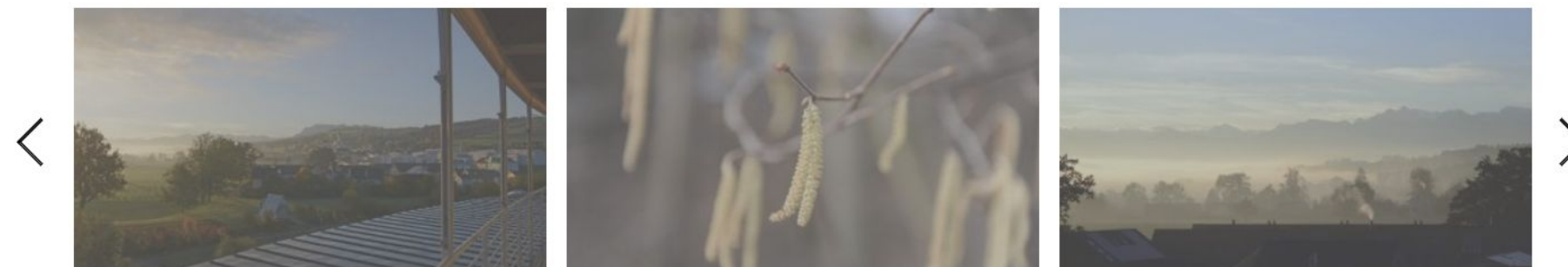


Image gallery

Creation steps

1. Modules & libraries
2. Create content
3. Image styles
4. Create views
5. Place the block
6. Edit the view
7. Style it

Predefined HTML structure

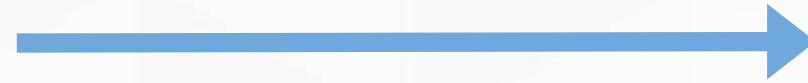
```
<div class="gallery slider">
  <a href="path/to/image">
    
    <div class="caption">Some caption</div>
  </a>
</div>

<div class="thumbnails">
  <div class="thumbnail">
    
  </div>
</div>
```

“Pull” data



Twig
template



Drupal



Decoupled Drupal

Decoupled Drupal

- Drupal as a content service
- Exposed content:
 - Rest API
 - JSON API
 - GraphQL
- Any frontend technology



“

This is awesome!

”



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“

But...
not always suitable

”

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Decouple or not?

- One or multiple experiences?
- Drupal as site or repository?
- Editorial needs?
- Security?
- Performance?
- Javascript vs. PHP?
- Budget

Read more: <https://dri.es/how-to-decouple-drupal-in-2018>



Progressively decoupled Drupal

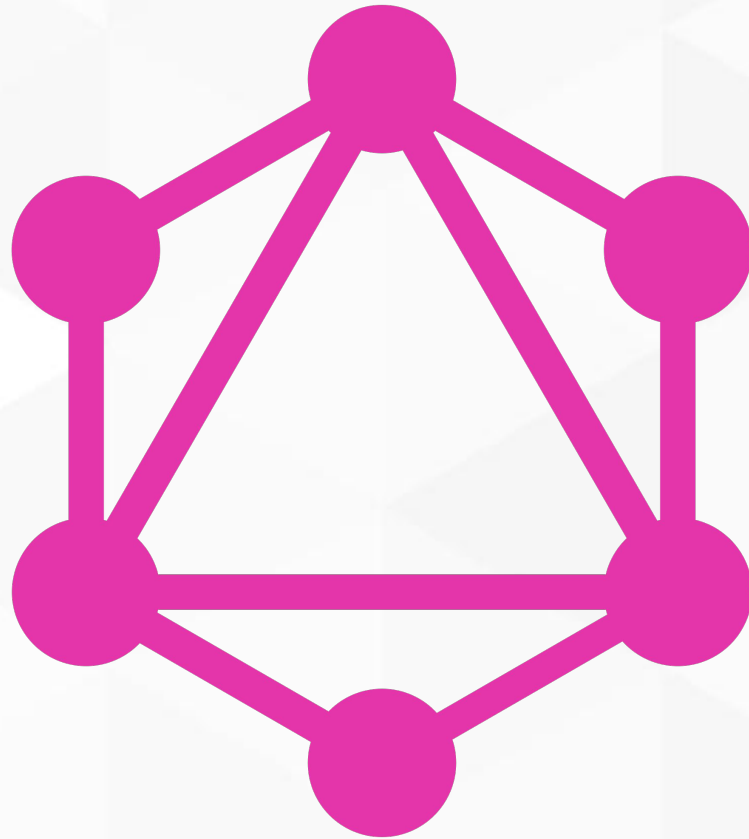
Balanced approach

- Javascript framework in front-end
- Drupal for populating data
- Good compromises



GraphQL in Twig

GraphQL



“Query language for APIs and a runtime for fulfilling those queries with your existing data.”

- <https://graphql.org>
- <https://www.drupal.org/project/graphql>

GraphQL provides:

- Understandable data description
- No overfetching & underfetching
- Powerful developer tools

Gallery example

Why “push” data? - “Pull” what
you need!



```
{#graphql
query ($node: String!) {
  node: nodeId(id: $node) {
    ...Gallery
  }
}
#}

<article{{ attributes.addClass('node-wrapper') }}>
  <div class="content">
    {{ content|without('field_gallery_image') }}
  </div>
  {% include '@components/gallery' with graphql.data.node only %}
</article>
```

Template override: node--article.html.twig

GraphiQL ▶ Prettify History < Docs

```
1 query ($node: String!) {
2   node: nodeId(id: $node) {
3     ...Gallery
4   }
5 }
6
7 fragment Gallery on Node {
8   items: fieldGalleryImage {
9     entity {
10      ... on MediaImage {
11        fieldMediaImage {
12          thumbnail: derivative(style: GALLERY_THUMBNAIL) {
13            url
14          }
15          image: derivative(style: GALLERY_IMAGE) {
16            url
17          }
18          alt
19        }
20      }
21    }
22  }
23 }
24
```

QUERY VARIABLES

```
1 {"node": "54"}
```

```
{
  "data": {
    "node": {
      "items": [
        {
          "entity": {
            "fieldMediaImage": {
              "thumbnail": {
                "url": "http://[redacted].docker.amazee.io/sites/default/files/styles/gallery_thumbnail/public/media/images/5_4.jpg?itok=iqH3s23B"
              },
              "image": {
                "url": "http://[redacted].docker.amazee.io/sites/default/files/styles/gallery_image/public/media/images/5_4.jpg?itok=2m2Amp62"
              },
              "alt": "First image"
            }
          }
        },
        {
          "entity": {
            "fieldMediaImage": {
              "thumbnail": {
                "url": "http://[redacted].docker.amazee.io/sites/default/files/styles/gallery_thumbnail/public/media/images/6_0.jpg?itok=dKHDEpTV"
              },
              "image": {
                "url": "http://[redacted].docker.amazee.io/sites/default/files/styles/gallery_image/public/media/images/6_0.jpg?itok=M7eXjdFc"
              },
              "alt": "Second image"
            }
          }
        }
      ]
    }
  }
}
```

Fetching images added through Paragraphs and Media is relatively easy.

```
<!-- Main carousel -->
<div class="gallery slider">
  {% for item in items %}
    {% set item = item.entity %}
    <a href="{{item.fieldMediaImage.image.url}}"
      title="{{item.fieldMediaImage.alt}}">
      {% include "@components/figure" with {
        caption: item.fieldMediaImage.alt,
        image: item.fieldMediaImage.image.url
      } only %}
    </a>
  {% endfor %}
</div>

<!-- Thumbnails -->
<div class="slidernav">
  {% for item in items %}
    <div class="thumb-wrapper">
      {% set item = item.entity %}
      {% include "@components/figure" with {
        image: item.fieldMediaImage.thumbnail.url
      } only %}
    </div>
  {% endfor %}
</div>
```

Gallery component in Fractal.



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First image



Block example

“Powered by Drupal”



```
{#graphql
query {
  admin:userById(id: "1") {
    uid
    name
  }
  user:currentUserContext {
    uid
  }
}
#}

{% extends '@bartik/block.html.twig' %}
{% block content %}
  {% set admin = graphql.data.admin %}
  {% set user = graphql.data.user %}
  <div{{ content_attributes.addClass('content') }}>
    {{ content }} and
    {% if user.uid == admin.uid %}
      you, {{ admin.name }}.
    {% else %}
      you, appreciated anonymous visitor.
    {% endif %}
  </div>
{% endblock %}
```

Template override for “Powered by Drupal” block

Benefits

- ✓ Separation of concerns
- ✓ Rapid product iterations
- ✓ Less sitebuilding work
- ✓ Get exactly what you need
- ✓ Strong type system - provides a *schema*
- ✓ Interfaces
- ✓ Full control of template structure
- ✓ Reasoning about data flow
- ✓ Tooling
- ✓ Well suited for atomic design

Things to keep in mind

- Configuration logic moves to templates
- Not fully covered yet
- Syntax highlighting
- Avoid too much mixing

Credits



Philipp Melab
[@pmelab](#)



Sebastian Siemmsen
[@thefubhy](#)

THANKS!
Any questions?



Resources

- Philipp Melab, Don't push it: using GraphQL in Twig: <https://www.amazeelabs.com/en/blog/dont-push-it-using-graphql-twig>
- The fullstack tutorial for GraphQL: <https://www.howtographql.com>
- Dries Buytaert, How to decouple Drupal in 2018: <https://dri.es/how-to-decouple-drupal-in-2018>
- Preston So, Progressively Decoupled Drupal Approaches: <https://dev.acquia.com/blog/progressively-decoupled-drupal-approaches/22/08/2016/1629>
- Druplicon: <https://www.drupal.org/about/media-kit/logos>
- Twig icon: <https://industrialagency.ca/blog/10-tips-twig-drupal-8>



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Join us for contribution sprints

Friday, April 13, 2018

Mentored Core sprint

9:00-12:00
Room: Stolz 2

First time sprinter workshop

9:00-12:00
Room: Stolz 2

General sprint

9:00-12:00
Room: Stolz 2

#drupalsprint



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What did you think?

Locate this session at the DrupalCon Nashville website:

<http://nashville2018.drupal.org/schedule>

Take the Survey!

<https://www.surveymonkey.com/r/DrupalConNashville>

Thank you!