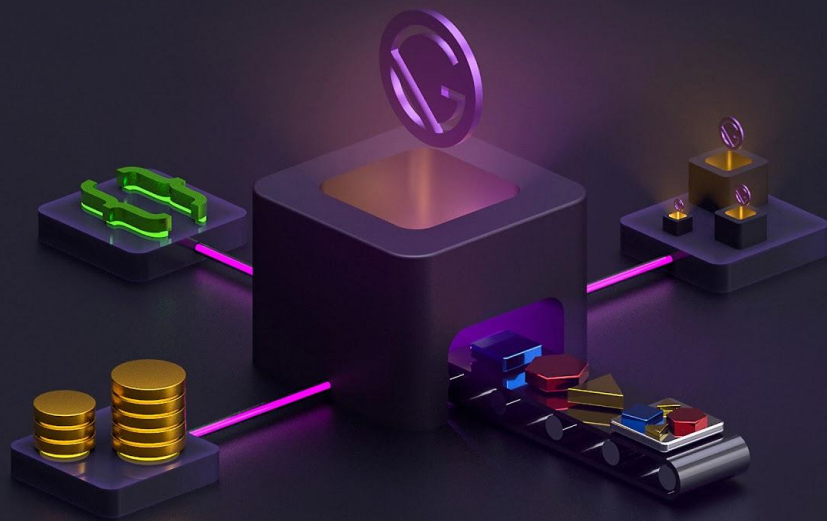


# Composable Building Blocks for the Web: An Introduction to Gatsby Themes



# Lennart Jörgens

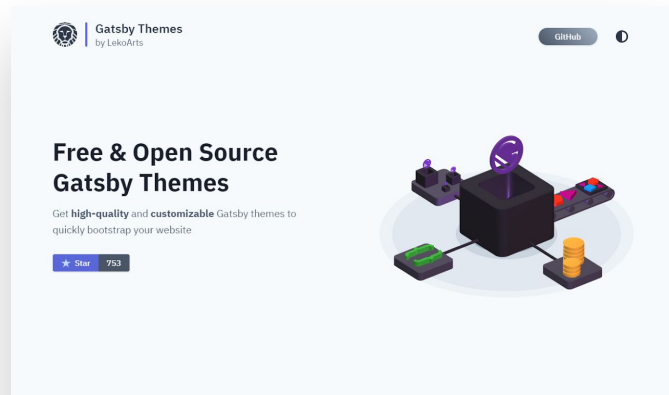
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 [github.com/LekoArts](https://github.com/LekoArts)



Free Themes at [themes.lekoarts.de](https://themes.lekoarts.de)





What are we going to cover today?

# Contents

- What is Gatsby?
- What are Themes?
- Themes in Gatsby
- Theme UI
- Demo



What are we going to cover today?

## What you'll learn

- Gatsby defines themes differentially
- How Gatsby themes empower both creators and engineers to collaboratively build sites
- Why Theme UI is our recommended way to style Gatsby Themes

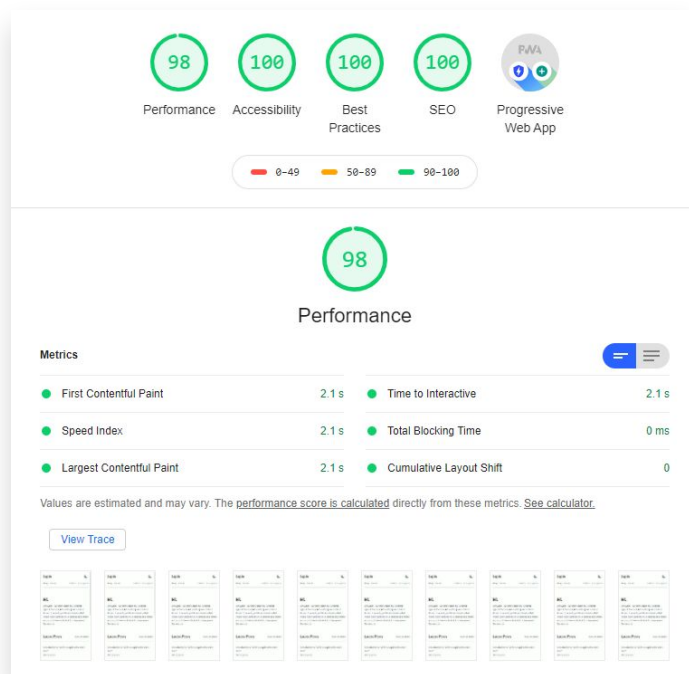


# What is Gatsby?



Gatsby is a free and open source  
framework based on React to build  
websites & apps

# Blazingly Fast by Default





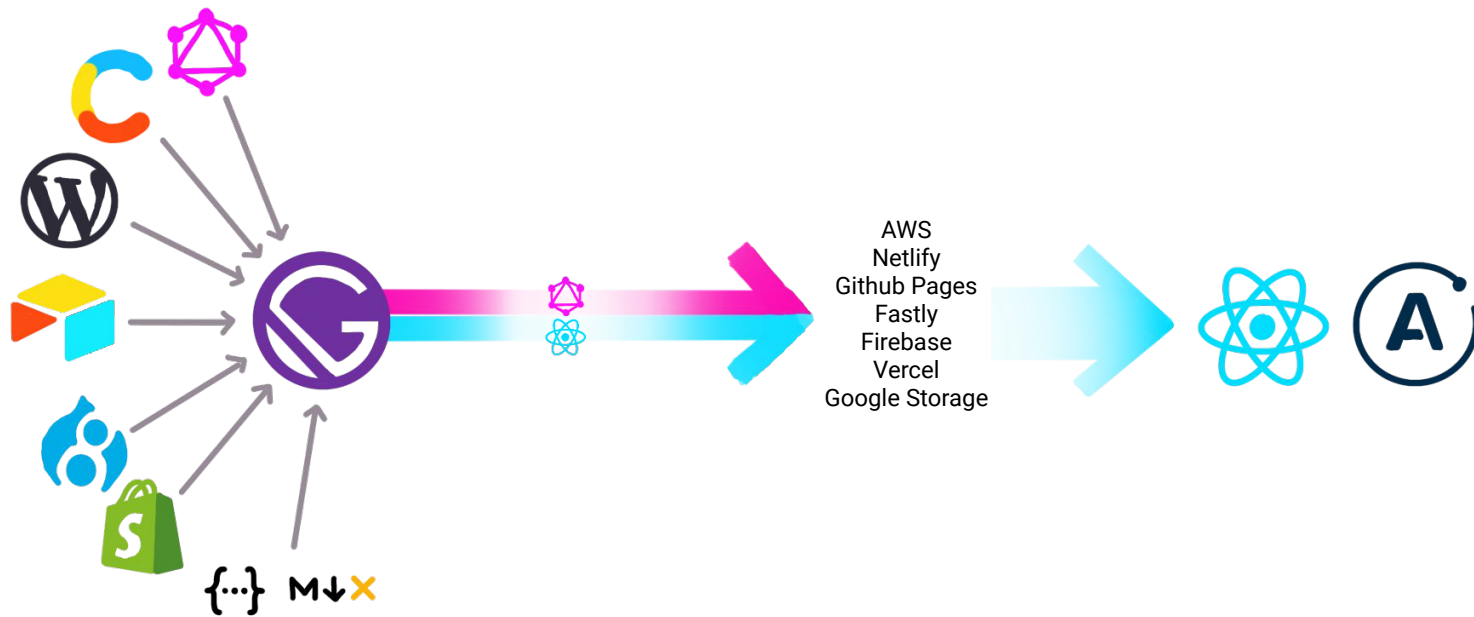
# Source from Anywhere

- Different sources
- Different types (e.g. REST or GraphQL)
- Remote or local

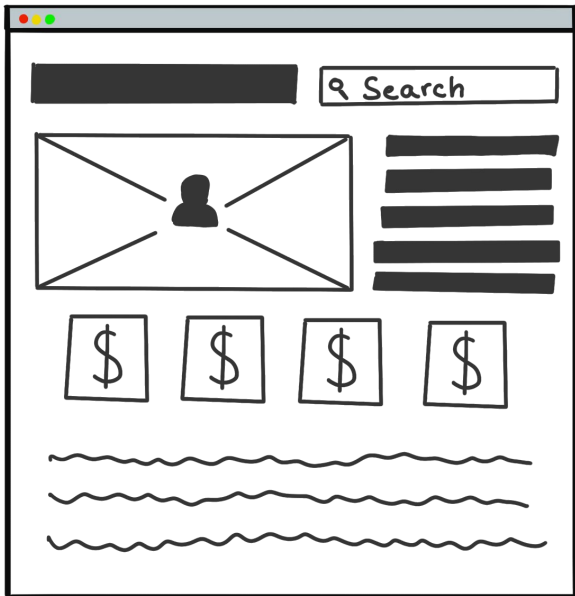
Source plugins and transformers are configured and set up in `gatsby-config.js`



## What is Gatsby?



```
1 module.exports = {  
2   plugins: [  
3     {  
4       resolve: `gatsby-source-airtable`,  
5       options: {  
6         apiKey: `YOUR_AIRTABLE_KEY`,  
7         tables: [  
8           {  
9             baseId: `YOUR_AIRTABLE_BASE_ID`,  
10            tableName: `YOUR_TABLE_NAME`,  
11          }  
12        ]  
13      }  
14    ]  
15  }  
16 }
```



# Content Mesh

- Monolithic CMS applications are being replaced by modular, specialized content systems
- Modern UI frameworks like React are becoming essential to rich user experiences
- Mobile traffic is huge and high-performance is a must-have, not a nice-to-have

Gatsby is the **orchestration** layer for the content mesh



# What are Themes?



# WordPress

- WordPress Themes often come first to your mind
- Themes = Styling
- Plugins = Functionality
- **But:** Some plugins also provide components/styling and some themes have a lot of functionality

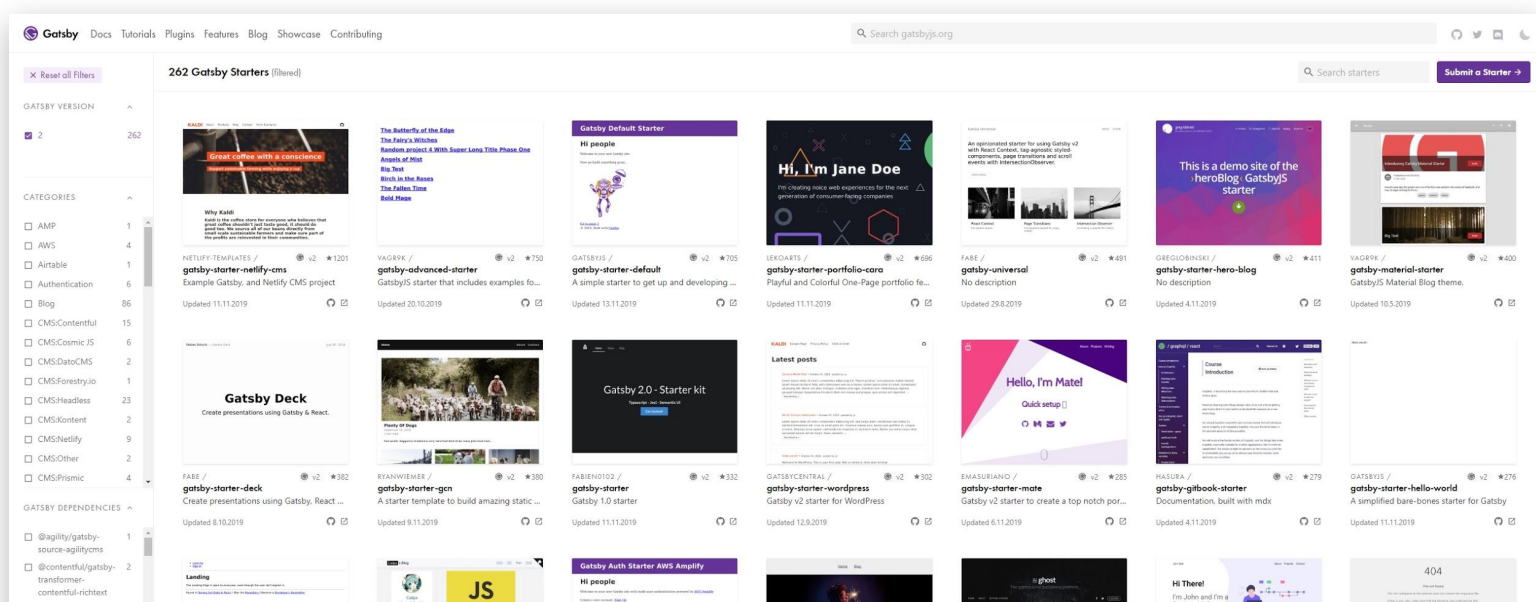
People often associate the term *themes* with visual design **only**



What are Themes?

# Gatsby Starters

- GitHub repositories you need to clone and use as a template
- It's only a starting point, you essentially fork it. Hence no upstream updates





# Who are Themes for?

- People who are new to a certain software. Easing the learning curve for them
- People who have a certain use case (blog, documentation, e-commerce etc.) and don't want to rebuild from scratch / share with the team
- People who want to make a living out of creating them
- Designers (Design Tokens, Components)



# So, what is a Theme?

An abstraction to common problems to help people collaborate

- Reusable
- Config-driven
- Contains both logic and/or components
- Has overriding capacities
- Extendable
- Upgradeable

*IN THEORY*

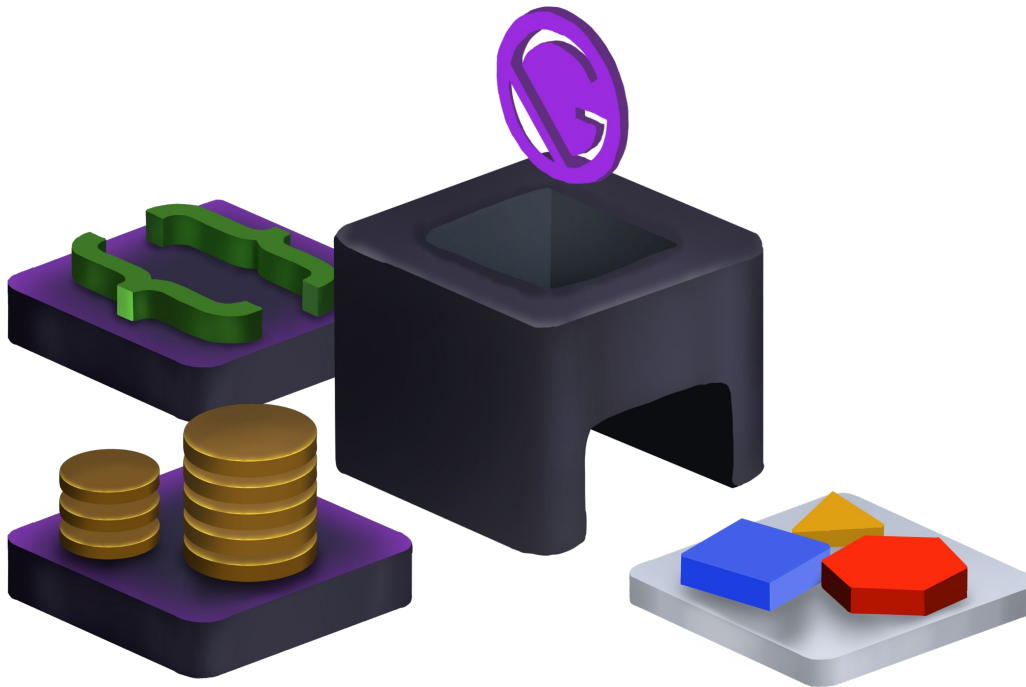




# Themes in Gatsby

# Gatsby Site

- Config
- Data / Assets
- Plugins
- Components



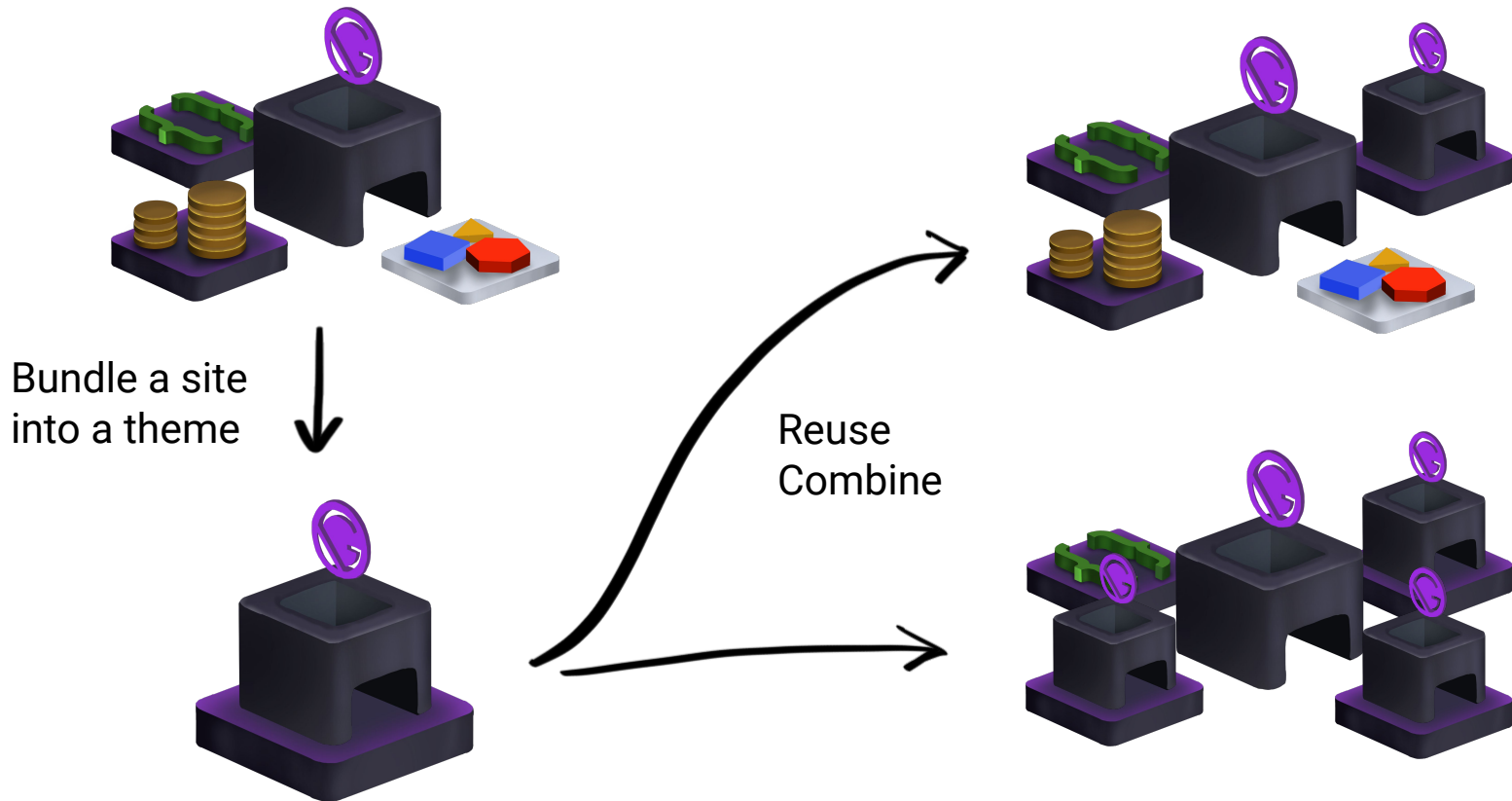


# Themes are essentially Gatsby sites

Themes are plugins that include a `gatsby-config.js` file and add pre-configured functionality, data sourcing, and/or UI code.

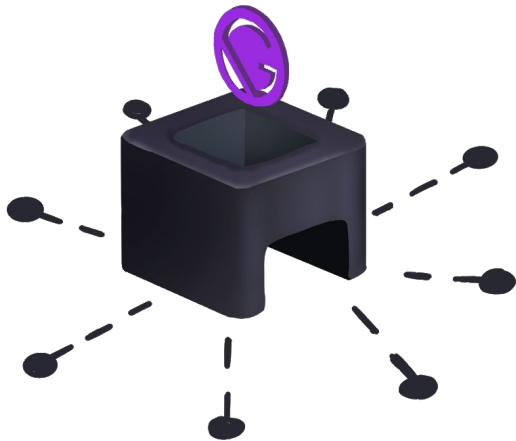
A reusable block of a Gatsby site.

```
1 module.exports = {  
2   plugins: [  
3     {  
4       resolve: `gatsby-theme-blog`,  
5       options: {  
6         basePath: `/blog`,  
7         contentPath: `content/blogposts`,  
8       }  
9     }  
10  ]  
11 }
```

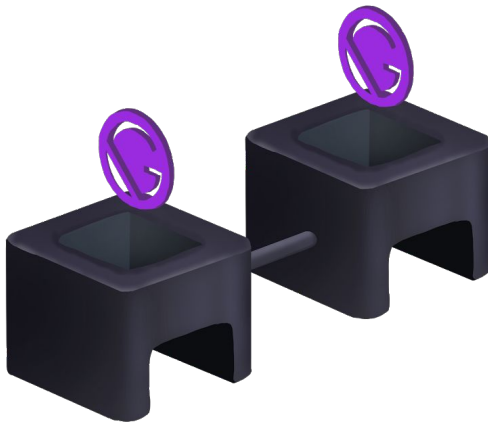


# Gatsby Themes can be ...

Shared



Extended



Customized



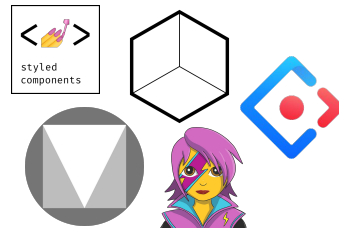
# Gatsby Themes can be ...

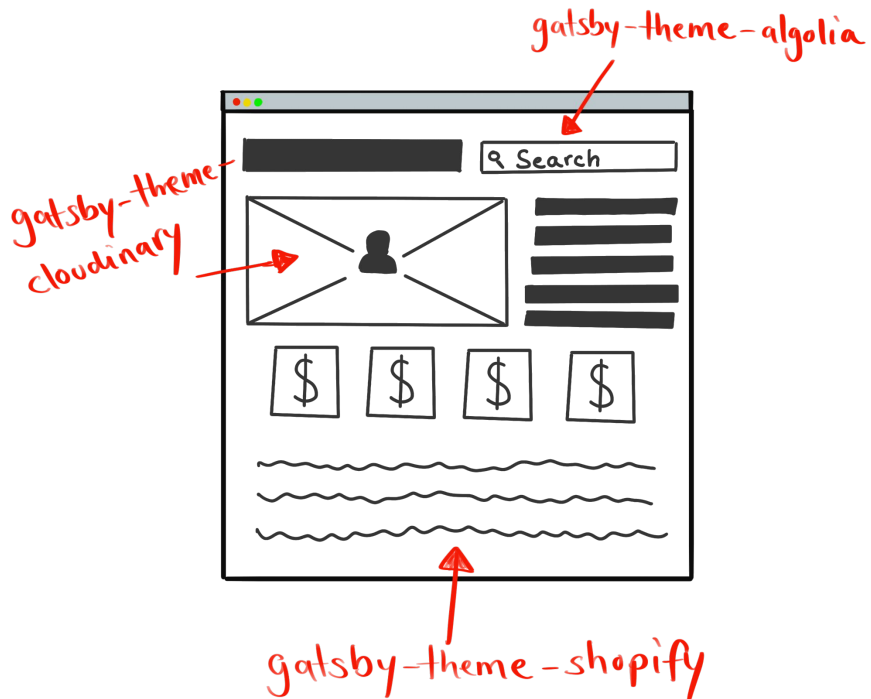
Purely data driven



Combination of both

Purely UI driven



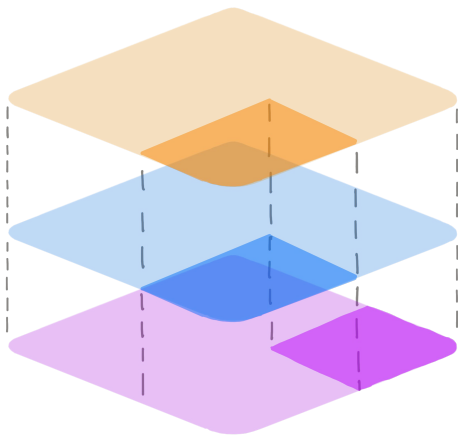


# Gatsby Themes & Content Mesh

- Create reusable & composable building blocks for the web
- Themes allow abstraction layers

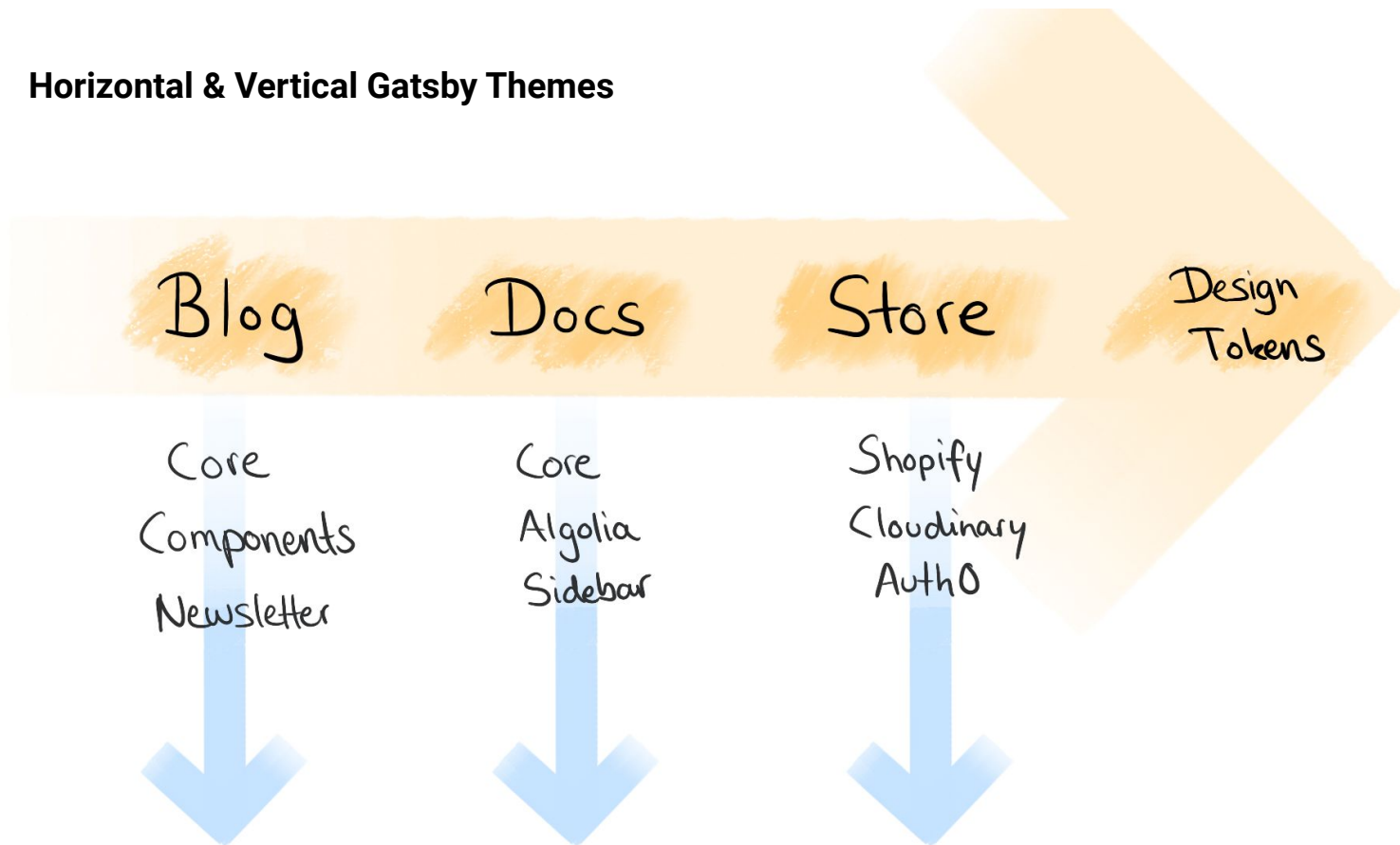


# Component Shadowing



- Users can augment or replace files in a theme
- Shadowed files go in directory named after the theme. Anything there replaces the theme's version
  - ex. `src/gatsby-theme-blog/components/footer.js`
- Theme will use your file first
- Users can shadow everything (UI, Styling, Data, Hooks, Queries)

## Horizontal & Vertical Gatsby Themes



# Shadow to provide props

```
1 import Footer from 'gatsby-theme-blog/src/components/footer'
2
3 const CustomFooter = props => (
4   <Footer { ... props}>
5     <span>Gatsby Theme </span>Blog
6   </Footer>
7 )
8
9 export default CustomFooter
```

# Shadow whole components

```
1 const Footer = props => (  
2   <footer styles={{ "span": { color: `rebeccapurple` } }}>  
3     <span>Gatsby Theme </span>Blog  
4   </footer>  
5 )  
6  
7 export default Footer
```

## Example: “Minimal Blog” Theme (Link)

Lupin

[Blog](#) [About](#)

[Twitter](#) [Instagram](#)

### Hi.

I'm Lupin - currently teaching "Defense against the Dark Arts" at Hogwarts, Great Britain. I recently published a book called [Those nasty Dementors](#). It teaches everything you need to know about defending against Dementors.

#### Latest Posts

[Read all posts](#)

Introduction to "Defence against the Dark Arts"

07.11.2019

Fantastic Beasts and Where to Find Them

01.11.2019

Curses and Counter-curses (Bewitch Your Friends and Befuddle Your Enemies with the Latest Revenges: Hair Loss, Jelly-Legs, Tongue-Tying, and Much, Much More)

25.10.2019

1

`gatsby-theme-minimal-blog-core`

- Defines the “Blogpost” and “Page” interfaces
- Sets up the page creation
- Unstyled

2

`gatsby-theme-minimal-blog`

- Overrides/Shadowes -core components
- Implements/Adds own React components
- Adds styling via Theme UI

3

Theme UI

## Example: “Little Caesars” Case Study [\(Link\)](#)

### Little Caesars Pizza Delivers with Gatsby



Starting from a single, family-owned restaurant in 1959, Little Caesars has grown into the third-largest pizza chain in the world. Today the company has stores in all 50 U.S. states, plus 26 additional countries and territories. Little Caesars runs more than 20 websites to support all of those stores with marketing content and easy online pizza ordering.

The company's existing site architecture, however, was far from streamlined, and this impeded both performance and development. The Little Caesars technical team decided that the best approach for providing an outstanding customer experience across all those different sites would be a unified ordering platform with scalability built in.

- Marketing Theme & e-commerce Theme
- Easily update banners, ads across all websites
- Add ordering capability to any Gatsby website
- Creating new sites is dramatically faster



# Progressive Disclosure

1. Use theme
2. Shadow components
3. Replace/Change GraphQL queries
4. Modify GraphQL Schema / Add new data sources
5. Make own theme (from scratch or on top of another)

# Translating theory into practice

- Reusable
- Config-driven
- Contains both logic and/or components
- Has overriding capacities
- Extendable
- Upgradeable

WITH GATSBY  
THEMES!

**Themes empower creators, improve DX, encourage collaboration, and align teams on form and function**





# Theme UI

## Create your theme

```
1 export default {
2   colors: {
3     text: '#000',
4     background: '#fff',
5     primary: 'tomato',
6   },
7   fonts: {
8     body: 'system-ui, sans-serif',
9     heading: '"Avenir Next", sans-serif',
10  },
11 }
```

## Style your UI

```
1 /** @jsx jsx */
2 import { jsx } from 'theme-ui'
3 export default props => (
4   <h1
5     sx={{
6       color: 'primary',
7       fontFamily: 'heading',
8     }}>
9     Hello
10   </h1>
11 )
```

You won't end up with 30 different blues on your site that should be one

Based on System UI specification

Specifically for React and MDX. Provides guidelines, abstracts implementation details away

Build consistent, themeable React apps based on constraint-based design principles

Constrain to theme's scales, e.g. constrain colors to a single palette or margins/paddings to negative space scale

# Features

- Works with any UI component library
- Quickly create mobile first designs
- Built-in support for dark mode / color modes
- Uses emotion
- Enables you to also style MDX



# Demo

*A short demo of editing “gatsby-theme-minimal-blog”.  
You can find a preview and source code at:  
[minimal-blog.lekoarts.de](https://minimal-blog.lekoarts.de)*



# Demo

*Source Code is available on GitHub*



# That's all, folks! 🙌

[www.lekoarts.de](http://www.lekoarts.de)

 [@lekoarts\\_de](https://twitter.com/lekoarts_de)

 [github.com/LekoArts](https://github.com/LekoArts)

Slides of this talk available at:  
[leko.io/gatsby-themes](http://leko.io/gatsby-themes)