



Serverless
static websites
by example

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Disclaimer N°1

Everything I'll show here can be solved in other ways, too. If you can do so: Just enjoy the show. I will be doing live coding and deployment, you may enjoy my struggle.

1. Serverless?
2. Static website generators?
3. Combining both
4. Profit

How fast can you
deploy a website
to the public?



< 20s

If the internet connection allows it.

The Basics

Deployment

*The process of
bringing your
project to the public.*

Frontend

*HTML + CSS +
JavaScript +
Content = The
visual part of the
Internet.*

Cloud Computing

*Cloud computing =
other people's
computers*

Serverless

Serverless
≡ runtime on other
people's computers

Behind the scenes

FaaS (Function as a Service) e.g.

- Amazon AWS Lambda
- Microsoft Azure Functions

PaaS (Platform as a Service) e.g.

- Google Cloud
- Heroku

*Serverless static
hosting & functions*

Focus on your work

- Create nice websites & web apps
- Deploy instantly
- Let others worry about infrastructure
- Integrate with CI

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World-Class Static Hosting

All-in-one solution for static & JAMstack deployment for performance-obsessed teams.

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```
bash
▶ my-site/ now
> Deploying ~/ACME/my-site under acme
> Using project my-site
⠑ Building
```

Zero config
Works with your web framework.

Push to deploy
With GitHub, GitLab, and Bitbucket.

Free automatic SSL
No tedious renewals and DNS.

100% Production-grade
Trusted by the best.

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One workflow. From local development to global deployment.

Netlify is everything you need to build fast, modern websites:
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The screenshot shows a Mac OS X desktop environment with a browser window open to the surge.sh website. The browser's address bar displays 'surge.sh'. The page features a green header bar with the surge logo (a green owl icon) and the word 'surge' in white. A navigation bar at the top includes links for 'Pricing', 'Tour', 'Help', 'Blog', and '@surge_sh'. Below the header, a large title reads 'Static web publishing' in bold black font, followed by 'for Front-End Developers' in a larger, italicized black font. A descriptive text block below the title states: 'Simple, single-command web publishing. Publish HTML, CSS, and JS for free, without leaving the command line.' Three large statistics are presented in bold black text: '5,623,992' (deployments), '52.67 TB' (published), and '783,592' (projects). At the bottom of the page is a dark grey terminal-style box containing the following command-line instructions:

```
$ npm install --global surge  
# In your project directory, just run...  
$ surge
```

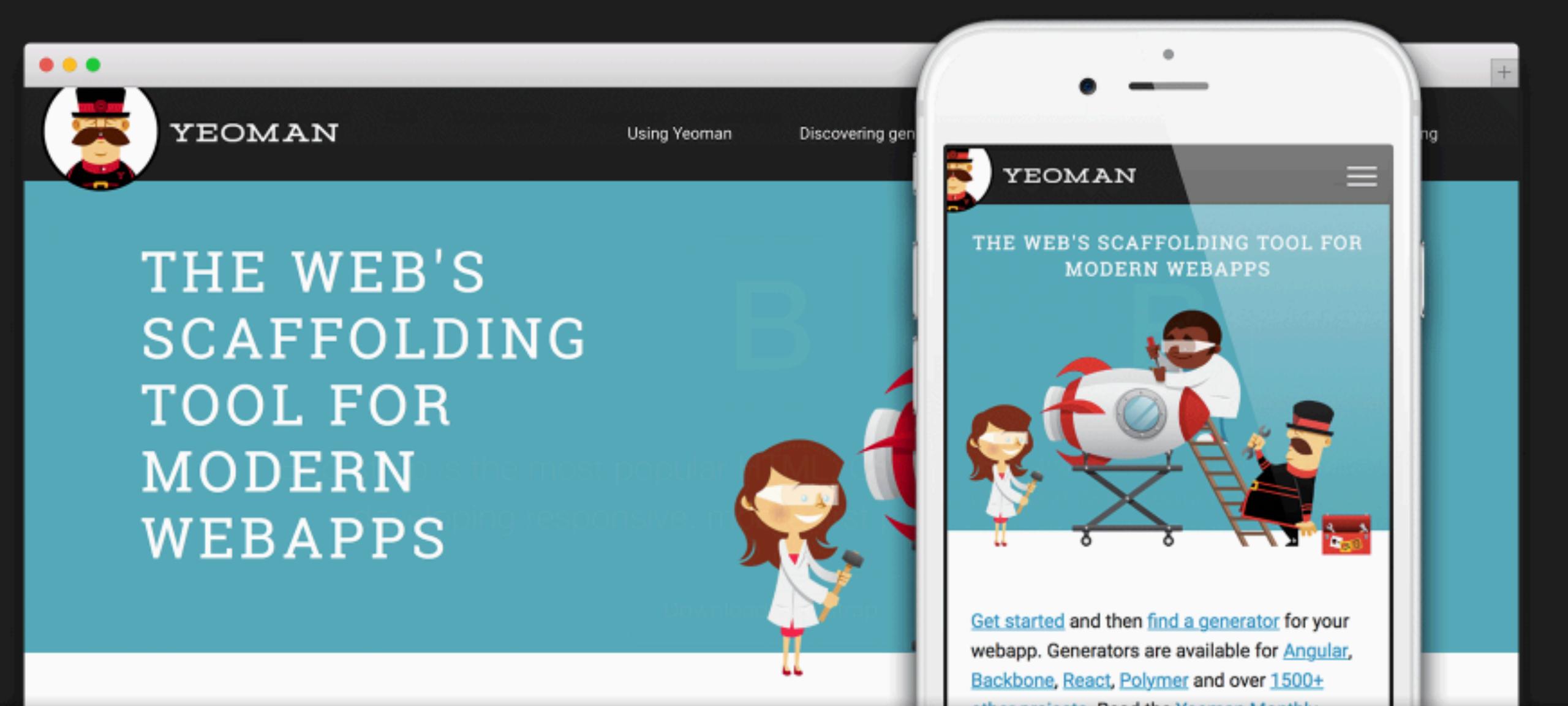
Menü anzeigen

pages.github.com

GitHub Pages

Websites for you and your projects.

Hosted directly from your [GitHub repository](#). Just edit, push, and your changes are live.



The Yeoman landing page on GitHub Pages, demonstrating responsive design across desktop and mobile devices. The desktop view shows the full landing page with the Yeoman logo, navigation links, and a large hero section. The mobile view shows a simplified version with the Yeoman logo, a hero section featuring cartoon characters working on a rocket, and a call-to-action button.

What is GitHub Pages?

Menü anzeigen

Pages Help

Providers

- Netlify
- Zeit Now
- Surge.sh
- CloudFlare
- GitHub Pages *

So why would you
not use this?

- no control over the server structure at all
- no way of knowing where your files are
- potential for vendor lock-in

*So why would you
use this?*

- no control over the server structure at all
- no need to know where your files are
- vendor lock-in unlikely if used in the right way

- takes little effort, very much like back in the old days, when we just dropped files onto an FTP
- but: with version control and automatic rollbacks & deployments

Static Site Generators

The screenshot shows a Mac OS X desktop environment with a browser window open to the Jekyll website at jekyllrb.com. The browser's address bar and various control icons are visible at the top.

The Jekyll logo is in the top-left corner. The top navigation bar includes links for **HOME** (highlighted in yellow), **DOCS**, **RESOURCES**, **SHOWCASE**, and **NEWS**. To the right is a search bar with the placeholder "Search the docs". Further right are links for **V4.0.0** and **GITHUB**.

Transform your plain text into static websites and blogs.

Simple

No more databases, comment moderation, or pesky updates to install—just your content.

[How Jekyll works →](#)

Static

Markdown, Liquid, HTML & CSS go in. Static sites come out ready for deployment.

[Jekyll template guide →](#)

Blog-aware

Permalinks, categories, pages, posts, and custom layouts are all first-class citizens here.

[Migrate your blog →](#)

Get up and running in seconds.

Quick-start Instructions

```
~ $ gem install bundler jekyll  
~ $ jekyll new my-awesome-site  
~ $ cd my-awesome-site  
~/my-awesome-site $ bundle exec jekyll serve  
# => Now browse to http://localhost:4000
```

Menü für „<https://daringfireball.net/projects/markdown/>“ anzeigen

Free hosting with GitHub Pages

gohugo.io

HUGO News Docs Themes Showcase Community GitHub

Search the Docs



The world's fastest framework for building websites

Hugo is one of the most popular open-source static site generators. With its amazing speed and flexibility, Hugo makes building websites fun again.

[Quick Start](#)

January 5, 2020
This version fixes a couple of bugs introduced in 0.62.0.

January 1, 2020
This version fixes a couple of bugs introduced in 0.62.0.

December 23, 2019
Hugo 0.62 brings Markdown Render Hooks. And it's faster!

December 11, 2019
40K stars on GitHub is a good enough reason to release a new version of Hugo!

Menü anzeigen

hexo.io

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A fast, simple & powerful blog framework

\$ npm install hexo-cli -g →

Stars 29k Forks 3.8k Downloads 48k/month Follow @hexojs 2.2k

2019-12-24 Speed is the Key - How We Make Hexo 30% Faster

2019-12-22 Hexo 4.2.0, hexo-util 1.8.0 & eslint-config-hexo 4.1.0 released

2019-12-15 Official plugin hexo-renderer-markdown-it 4.0.0 released

2019-12-12 Hexo 4.1.1, hexo-util 1.7.0 & eslint-config-hexo 4.0.0 released

⚡ Blazing Fast

Incredible generating speed powered by Node.js. Hundreds of files take only seconds to build.

📝 Markdown Support

All features of GitHub Flavored Markdown are supported, including most Octopress plugins.

Menü anzeigen

New! Create a site in 5 minutes with [Gatsby Cloud!](#)

Gatsby Docs Tutorials Plugins Features Blog Showcase Contributing

Search gatsbyjs.org

Fast in every way that matters

Gatsby is a free and open source framework based on React that helps developers build blazing fast **websites** and **apps**

[Get Started →](#)

How Gatsby works

Pull data from anywhere

DATA SOURCES

CMSs
Contentful, Drupal, WordPress, etc.

Markdown
Documentation, Posts, etc.

Data
APIs, Databases, YAML, JSON, CSV, etc.

Menü anzeigen

www.11ty.dev

11ty

Eleventy is a simpler static site generator.

Docs Contribute Search GitHub Twitter zachleat

QUICK START

```
npm install -g @11ty/eleventy
```

Interesting projects

- Hugo (Go) (Crazy fast)
- Hexo (JS) (Hugo for JS people)
- 11ty (JS) (Great for less complex stuff)
- Gatsby (JS) (If you enjoy JSX)
- VuePress (Vue) / Empress (Ember)
- Jekyll (Default for GitHub Pages)

In short

- Build from Markdown files & templates
- Render everything at build time
- Requires no database on the server
- All static files, easy to cache and serve
- Works locally, with little setup

Bonus Round

JAM Stack

JavaScript + APIs + Markup

JavaScript + APIs + Markup

It's a marketing term created by Netlify to describe statically generated websites which use APIs and Frontend Frameworks to display dynamic content, supported by serverless backends, which they happen to provide.

Marketing is beautiful. -＼(ツ)／-

Dem o time!

Disclaimer Time

We'll be using Now from Zeit. They do not pay me, nor is this meant as a product endorsement. There are many other great platforms and even ways to roll your own, if you must miss the point of this on purpose. I picked them because I liked their command line tool and they happen to work well enough for me to be confident enough to do this demonstration.

1. Deploy a simple HTML file
2. Deploy a statically generated website
3. Deploy using a git commit



Serverless. Questions?

Thanks!

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