

Build your static site with Python



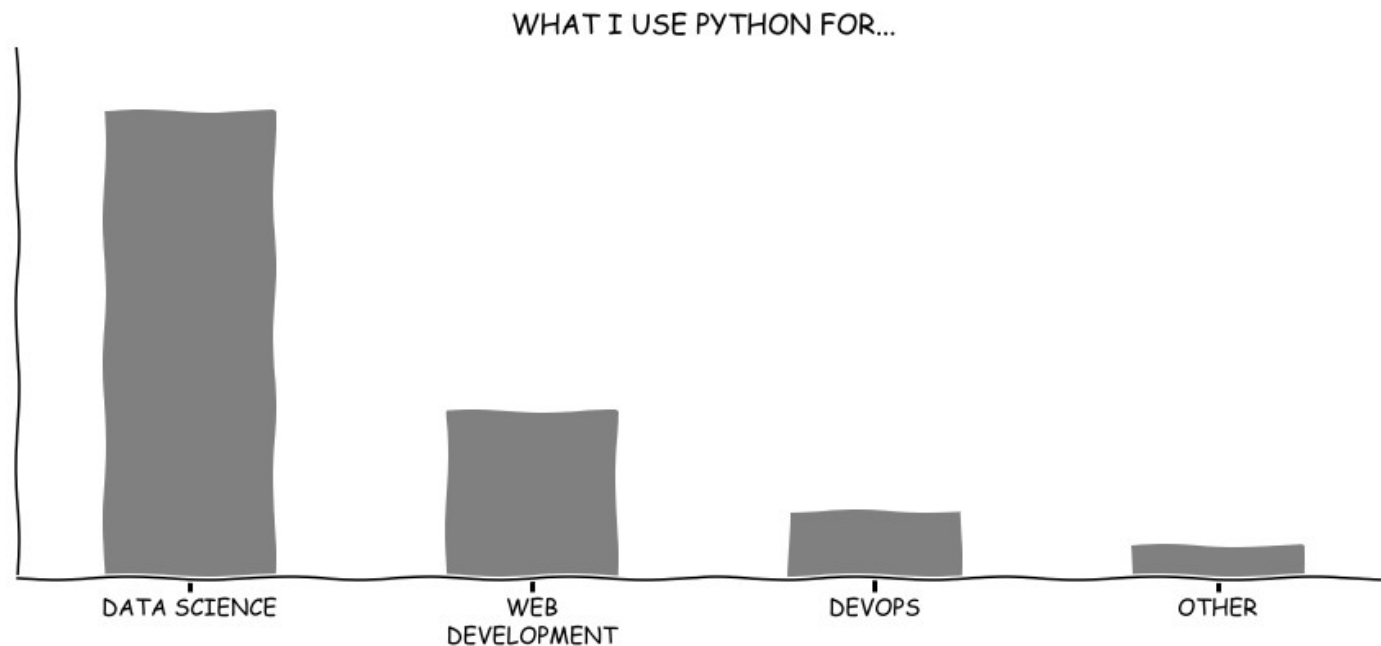
Fernando Rabanal
October 6, 2018

Build your static site with Python
PyConES – Oct 6, 2018

Disclaimer

- Opinions in this talk are my own and not of my employer.
- Any code or information from this talk is only shown for informative purposes. Use it at your own risk.

Who am I?



Data Scientist
as my job

Interested in
new technologies

Passion for Python

Improve by sharing

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Why?

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Why build a static site?



Maintenance

- Based in Python and Markdown
- Incremental builds
- CI/CD integration



Security

- Just plain HTML
- External dependencies for dynamic content



Obsolescence

- Avoid urgent platform updates
- Technology changes are much smoother



Control

- Avoid lock-in
- Control your costs and performance
- Focus on the content



We love the language

Easy to use and maintain

Create tailored extensions

Pythonic philosophy

Easy

Portable

Fast

Flexible

Clean

Fits any workflow

Why Markdown? A two minute explanation

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How?

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Python-based common libraries



MkDocs

<https://www.mkdocs.org/>



Nikola

<https://getnikola.com/>



Pelican

<https://blog.getpelican.com/>

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MkDocs

MkDocs is a fast, simple and downright gorgeous static site generator that's geared towards building project documentation.

Documentation source files are written in Markdown, and configured with a single YAML configuration file.

<https://www.mkdocs.org/>

-
- Made to aid project documentation.
 - Easy to use, easy to deploy.
 - Customize the appearance.
 - Live previews of your work

MkDocs: create your site

1

Initialize the project

```
> mkdocs new pycon_mkdocs
```

```
INFO    - Creating project directory: pycon_mkdocs
INFO    - Writing config file: pycon_mkdocs/mkdocs.yml
INFO    - Writing initial docs: pycon_mkdocs/docs/index.md
```

2

Place **.md** files in **docs** folder

3

Create HTML output

```
> mkdocs serve
```

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MkDocs: site preview



This is my first page

This is a second-level paragraph

Another paragraph here

This is my first page

Enjoy it!

This is a second-level paragraph

Enjoy it!

Another paragraph here

What do you think?

Documentation built with [MkDocs](#).

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Nikola

Nikola is a static website and blog generator. The very short explanation is that it takes some texts you wrote, and uses them to create a folder full of HTML files.

If you upload that folder to a server, you will have a rather full-featured website, done with little effort.

<https://getnikola.com/>

-
- Support for automation.
 - Themes and extensions available.
 - Internacionalization support
 - Support for blogs, static pages... a replacement for CMS

Nikola: create your site (I)

Creating Nikola Site

1

```
> nikola init --demo pycon_nikola
```

```
=====

This is Nikola v7.8.15. We will now ask you a few easy questions about your new site.
If you do not want to answer and want to go with the defaults instead, simply restart with the '-q' parameter.
--- Questions about the site ---
[Site title [My Nikola Site]: Python Hints
[Site author [Nikola Tesla]: pyconist
[Site author's e-mail [n.tesla@example.com]: me@example.com
[Site description [This is a demo site for Nikola.]: This is a brand new place for your Python tricks.
[Site URL [https://example.com/]: https://
[Enable pretty URLs (/page/ instead of /page.html) that don't need web server configuration? [Y/n] Y
--- Questions about languages and locales ---
We will now ask you to provide the list of languages you want to use.
Please list all the desired languages, comma-separated, using ISO 639-1 codes. The first language will be used as the default.
Type '?' (a question mark, sans quotes) to list available languages.
[Language(s) to use [en]:

Please choose the correct time zone for your blog. Nikola uses the tz database.
You can find your time zone here:
https://en.wikipedia.org/wiki/List_of_tz_database_time_zones

[Time zone [Europe/Madrid]:
    Current time in Europe/Madrid: 18:07:01
[Use this time zone? [Y/n]
--- Questions about comments ---
You can configure comments now. Type '?' (a question mark, sans quotes) to list available comment systems. If you do not want any comments, just leave the field blank.
[Comment system: ?

# Available comment systems:
#  disqus, facebook, googleplus, intensedebate, isso, livefyre, muut

[Comment system:

That's it, Nikola is now configured. Make sure to edit conf.py to your liking.
If you are looking for themes and addons, check out https://themes.getnikola.com/ and https://plugins.getnikola.com/.
Have fun!
[2018-09-08T16:07:22Z] INFO: init: A new site with example data has been created at pycon_nikola.
[2018-09-08T16:07:22Z] INFO: init: See README.txt in that folder for more information.
```

Nikola: create your site (II)

2

Place your files

Posts in **posts** folder

Static pages in **pages** folder

3

Create HTML output

```
> nikola build
```

4

Visualize in **127.0.0.1:8000**

```
> nikola serve
```

Nikola: site preview

[Python Hints](#) [Archive](#) [Tags](#) [RSS feed](#)

This is my first page

pyconist — 2018-09-08 19:11

Enjoy it!

Contents © 2018 [pyconist](#) - Powered by [Nikola](#)

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Pelican

I was previously using WordPress, a solution you can host on a web server to manage your blog. Most of the time, I prefer using markup languages such as Markdown or reStructuredText to type my articles.

Some history about Pelican

-
- Customizable, extensible.
 - Many themes available in GitHub.
 - Internacionalization support.
 - Focus in blogs, with support for integration with other tools: WordPress, social networks...

Welcome to pelican-quickstart v3.7.1.

1

> pelican-quickstart

This script will help you create a new Pelican-based website.

Please answer the following questions so this script can generate the files needed by Pelican.

```
> Where do you want to create your new web site? [.] ./pycon_pelican
> What will be the title of this web site? Python Hints
> Who will be the author of this web site? pyconist
> What will be the default language of this web site? [es] en
> Do you want to specify a URL prefix? e.g., http://example.com (Y/n) Y
> What is your URL prefix? (see above example; no trailing slash) https://
> Do you want to enable article pagination? (Y/n) Y
> How many articles per page do you want? [10]
> What is your time zone? [Europe/Paris]
> Do you want to generate a Fabfile/Makefile to automate generation and publishing? (Y/n) Y
> Do you want an auto-reload & simpleHTTP script to assist with theme and site development? (Y/n) Y
> Do you want to upload your website using FTP? (y/N) N
> Do you want to upload your website using SSH? (y/N) N
> Do you want to upload your website using Dropbox? (y/N) N
> Do you want to upload your website using S3? (y/N) N
> Do you want to upload your website using Rackspace Cloud Files? (y/N) N
> Do you want to upload your website using GitHub Pages? (y/N) N
Done. Your new project is available at /Users/macbook/Documents/pycon2018/pycon_pelican
```

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Pelican: create your site (II)

2

Place your files

Posts in **content** folder

Static pages in **content/pages** folder

3

Create HTML output

```
> pelican content
```

4

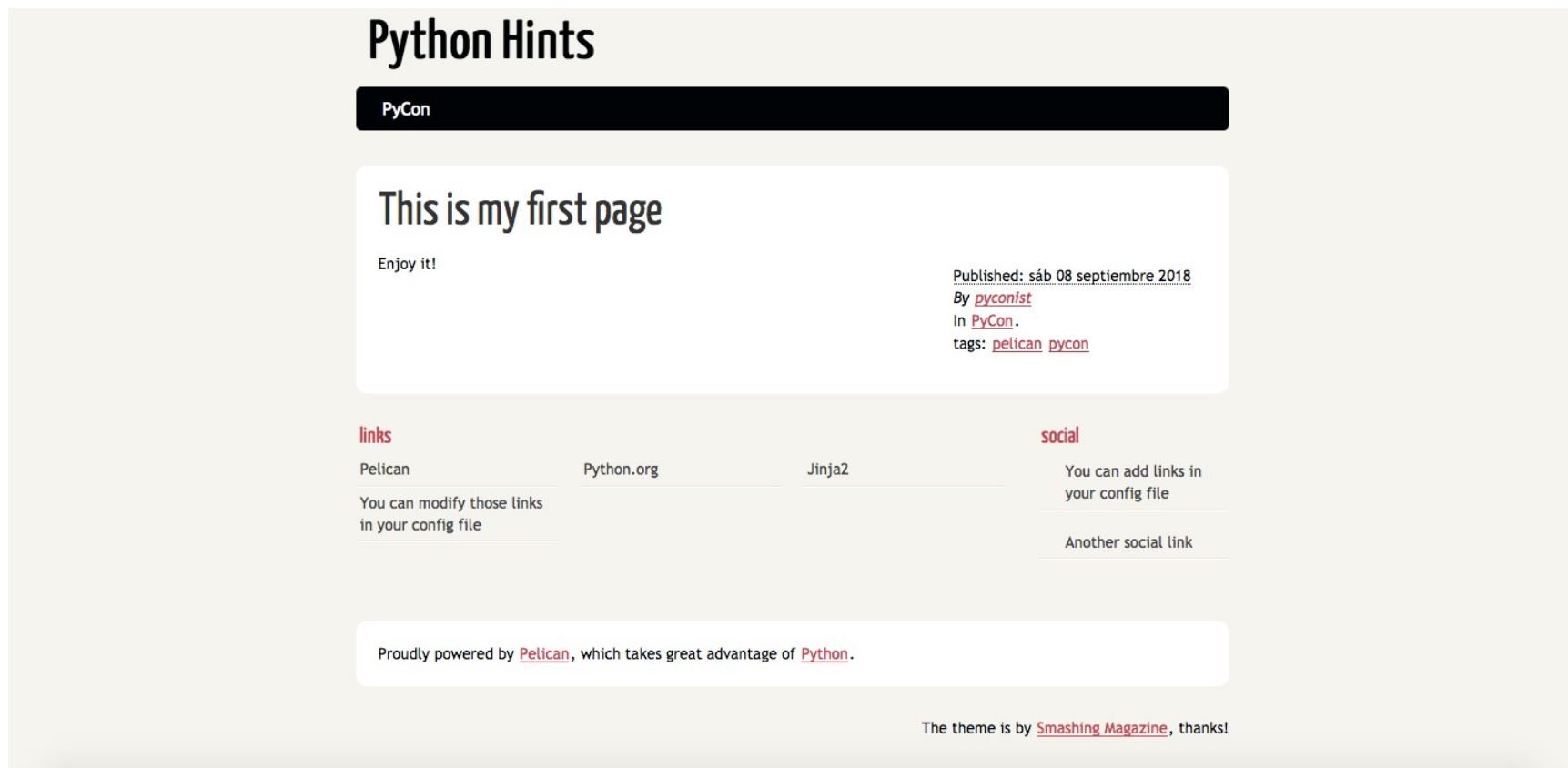
Visualize in **127.0.0.1:8000**

```
> cd output  
> python -m pelican.server
```

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Pelican: site preview



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How can I deploy my site?

MkDocs

- Host your HTML files anywhere: your server, GitHub pages, Amazon S3...

Nikola

- Support for:
 - Automated deployment
 - GitHub
 - Integration with Travis CI

Pelican

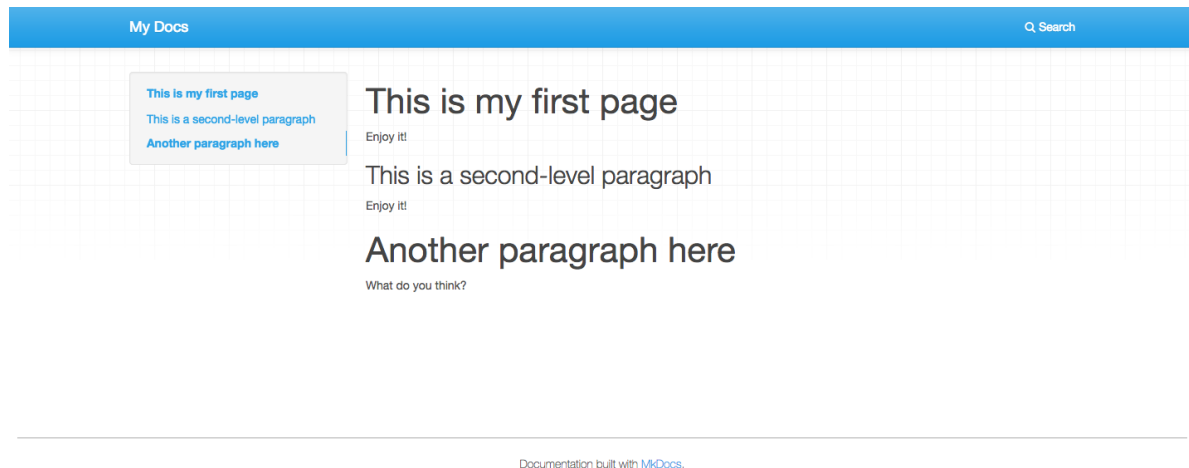
- Support for:
 - FTP transfer
 - SSH transfer
 - Dropbox
 - S3
 - Rackspace Cloud Files
 - GitHub

What?

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Shout out your story

```
1 # This is my first page
2
3 Enjoy it!
4
5 ## This is a second-level paragraph
6
7 Enjoy it!
8
9 # Another paragraph here
10
11 What do you think?
12
```



Focus on the content

Iterate quickly

Maintain with little effort

Simple and secure

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Customize your experience

MkDocs

- Plain and simple.
- Forget about any complexity.
- Create, visualize, deploy.

Nikola

- Additional themes available.
- Not tailored only for blogs.
- Extend your web as you desire.
- Incremental builds.
- CI/CD integration

Pelican

- Themes and extensions available.
- Deploy almost everywhere automatically.
- Great option for blogs, many options available.
- Incremental builds.
- CI/CD integration.

Do not stop at static only!

MkDocs

- Embed code from external sources.
- HTML blocks.

Nikola

- Integrated support:
 - Media
 - Youtube
 - Vimeo
 - Soundcloud
 - Code blocks
 - Gist
 - Thumbnail
 - Charts...

Pelican

- Integrated support:
 - Disqus
 - Twitter
 - Google Analytics...

... and many other via plugins!

Thank you for your attention!

https://github.com/frabanalpresa/pycon_es18



Any questions?

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Acknowledgements and links



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<https://www.mkdocs.org/>



<https://getnikola.com>



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<https://blog.getpelican.com/>



<https://daringfireball.net/projects/markdown/>

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