

# Getting Started with Copier

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Event organized by: Academic Partners Foundation, PyData, PyWaw





# Agenda

1. What is a Copier?
2. How it works?
3. Template Preparation
4. Copier Features
5. Practical Examples
6. Conclusions

# What is a Copier?

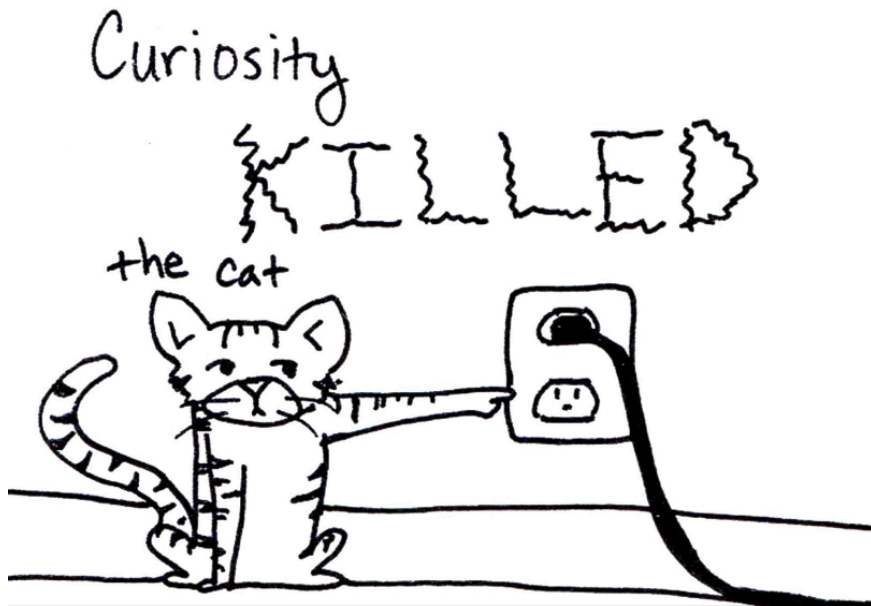
Library & CLI app for rendering project templates.

NOT ONLY PROJECT TEMPLATES!



# Why Copier?

- Discovered Copier, completed task in 15 minutes.
- Easy, fast & useful tool better than other tools 😊
- Fullstack FastAPI template moved from CookieCutter to Copier.
- Rule ABC - Always Be Curious!



# How it works?

1. Run to copy `copier copy source-template destination-solution`

2. Answer questions from config file

```
→ code-conf-essions git:(copier) ✖ uv run copier copy .template .  
Presentation title  
Python Summit 2024
```

3. Magic

4. Resolve Conflicts

5. If we have any Conflicts

6. Success generated project, ready to use.





# Template Preparation

1. Install env - recommend uv ⚡
2. Folder for our template .template
3. Questions in copier.yml

4. Prepare Jinja2 templates folder/files, use variables

 .template

|——  `{{project_name}}`

| |——  `{{module_name}}.py.jinja`

|——  `copier.yml`

# Jinja2

Powerful templating engine

Allowing you to generate HTML, python(py) other files formats with dynamic data.

`{{ ... }}` for Expressions to print to the template

```
1 import jinja2
2
3 environment = jinja2.Environment()
4 template = environment.from_string("Hello, {{ name }}!")
5 name = "Python Summit"
6 template.render(name=name)
```

Hello, Python Summit!

`{% ... %}` for Statements to control the logic of the template

```
1 template = environment.from_string("Presentation is a {% if name %}SUCCESS{% else %}FAILURE{% endif %}.")
2 template.render(name=name)
```

Presentation is a SUCCESS.



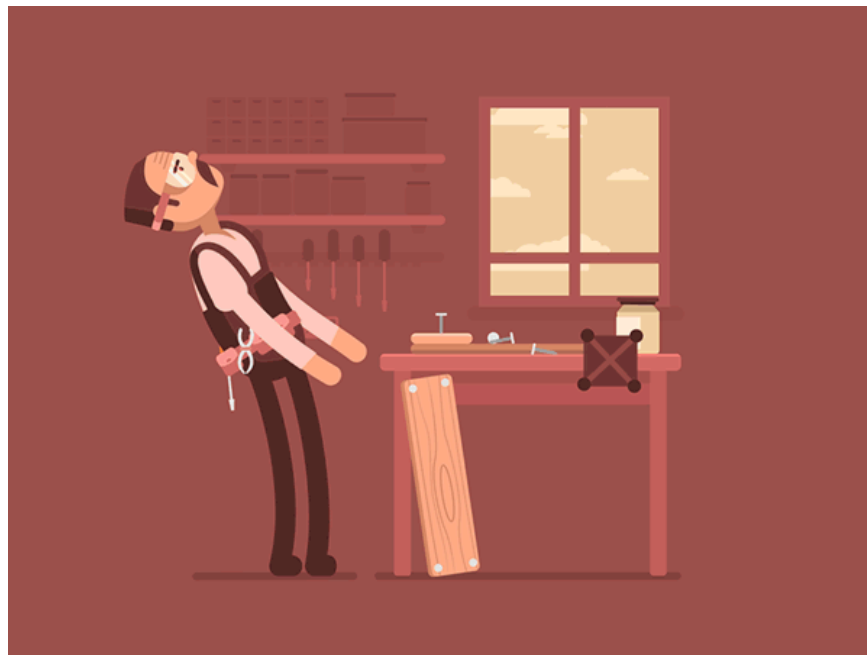
# Copier Features

- Source Local file
- Source Git url
- Validation
- Exclude
- Tasks - After generation
- Context hooks - Before generation & more
- Jinja Templates
- Extensions
- Resolve Conflicts
- Update
- Migrations

# Practical Examples

Examples of Copier usage:

- New Presentation
- Blog Post
- New Fullstack Project



by Chris Phillips

# New Presentation

For the presentation, I use Slidev.

- Slidev allows to create slides using Markdown.
- Today presentation is created using Slidev.
- Powered by Vue.js, JavaScript, HTML, CSS.
- Copier Features: tasks, source from local template.
- <https://github.com/KuligKamil/code-conf-essions>



Slidev

<https://sli.dev/>

# New Blog Post

For Blogging, I used Jekyll.

- Jekyll allows you to create blog post using Markdown.
- <https://kuligkamil.github.io/>
- Behind the scene is Ruby, HTML, CSS, Markdown.
- Copier Features: extensions, context, exclude, source local file, validation.



# New Project

To start a new project, use Copier to generate it from a template.

- inspire by: <https://github.com/fastapi/full-stack-fastapi-template>
- <https://github.com/KuligKamil/full-stack-fastapi-vue-template>
- Behind the scene is Vue.js, JavaScript, Python, FastAPI.
- Copier Features: source from github link.



# Conclusions

- Documentation for Copier  
<https://copier.readthedocs.io/en/stable/>
- Automated code prettifier  
<https://github.com/copier-org/autopretty>
- copier-templates-extensions  
<https://github.com/copier-org/copier-templates-extensions#context-hook-extension>
- My presentation  
<https://github.com/KuligKamil/code-confessions/prod>

My linkedin



Kudos for my friend & speaker from Data Science Summit.

Maciej Morawski

# Feedback

Scan the code and leave  
your opinion



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Kamil Kulig

<https://pythonsummit.org/user.html#!/lecture/PYS24-ff37/rate>

# Thank you for watching!



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