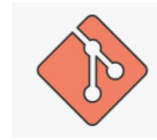
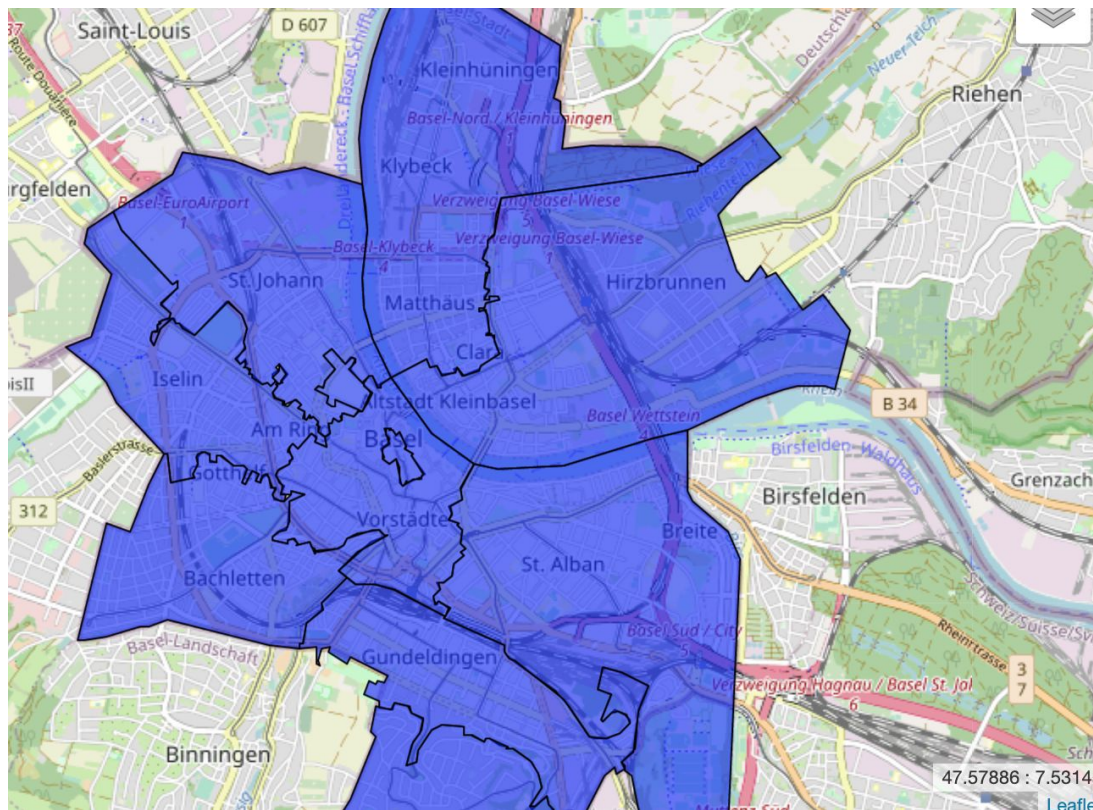


# Display Your Map on a Website Using Geopandas , Folium , Django , and Heroku

Gregory Wallace - GeoPython 2022



# Demo



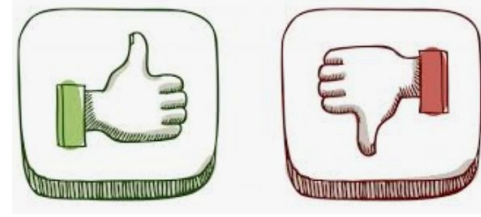
# Agenda & scope



1. We explain the pros & cons, and the tools needed,
2. Then we start by a data preparation example with Geopandas to prepare a Folium map.
3. Then we create and prepare a Django application to render the map locally.
4. We finally push the code to Heroku to have a website ready with a map page.

Current presentation and detailed steps are in a public github repo so no need to take notes <https://github.com/gregwalla/geopythonBasel>

# Pros & Cons



An html file can be seen just as easily just by clicking on it

- > Potential exceeding size of an html file to be shared via email
- > Web app can be embedded in a presentation as a link

Why Django & Heroku ? Other options exist to publish a GIS web app

- > Currently 100 % free & no credit card no to give
- > Harder to set up , easy to iterate
- > Good tutorials (especially Corey Shafer) & documentations

# Whoami

I work in an energy distribution company in Paris

Data Scientist and responsible for GIS applications in geomarketing

Switched from finance to data science & GIS 5 years ago

Live in la Rochelle , western coast of France



# Ingredients and purpose



1. A computer, with an OS and python version 3.6 or higher
2. Internet not “too” blocked - to install libraries and push code to Heroku
3. IDE(s), of your choices - for data prep & for website preparation
4. Build-in python venv - to manage dependencies
5. Command line - to navigate, start venv and push codes
6. Geopandas & Folium libraries - to prepare the map
7. Django library - to prepare the website
8. Git - to deploy the app to Heroku
9. Gunicorn, a python web server library - to be used by heroku, using WSGI via a procfile ( .. its complicated .. )
10. Heroku Client (Admin rights) , alternatively Github (Without Admin rights) - to manage the heroku app from command line
11. Github - to save & backup the documentation & codes , alternatively to deploy

# 1- Geopandas to prepare a Folium map

*“From data, to a map in a html file ”*

**DIE POST** Daten Karte Diagramme API Dokumentation Kontakt [Registrierung](#) [Anmelden](#)

41 Dateneinträge

AKTIVE FILTER [Alle löschen](#)

Filter

Suche nach Einträgen ...

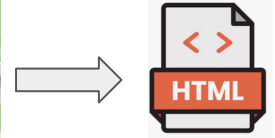
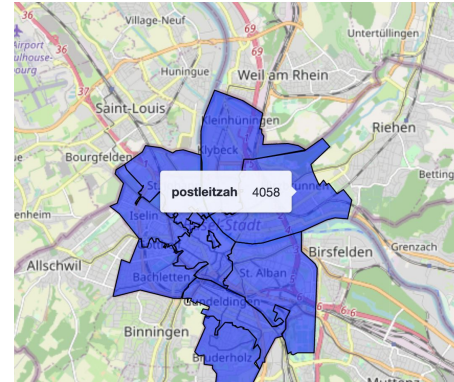
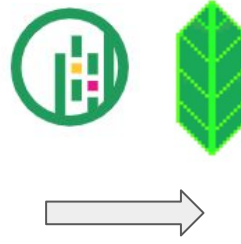
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PLZ\_Verzeichnis

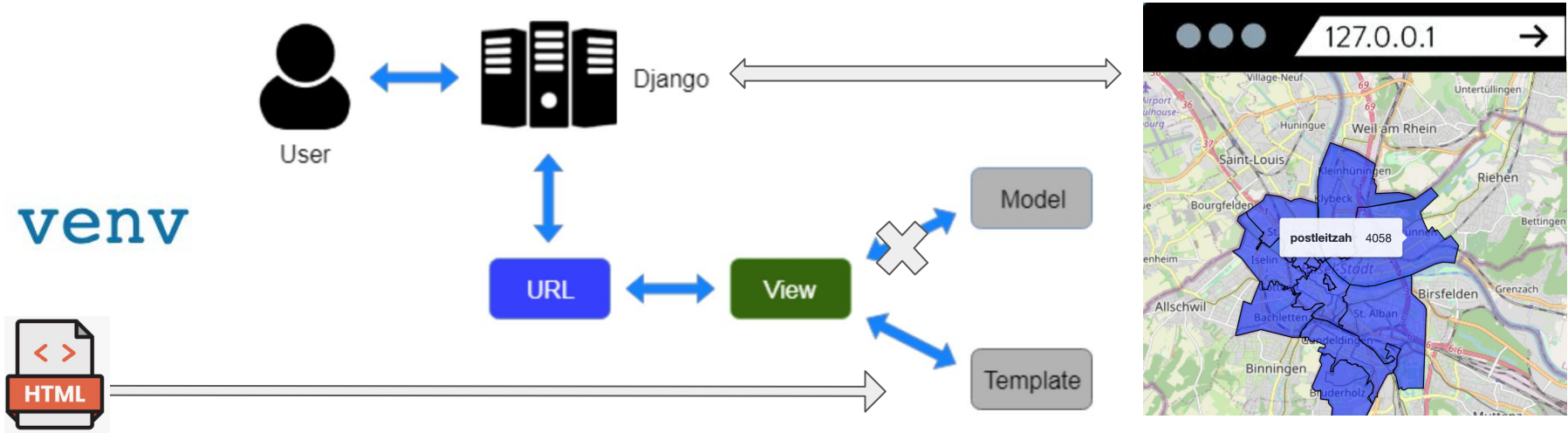
Informationen Tabelle Karte Analysen Exporte CSV

K_ABEW	ORWP	BRPWA	PLZ_TYP	BRPFL_ZURICH	GEZ_ABL_2011	PLZ_BRPFL_ZURICH	PLZ_CODE	Geo-Shape	Geo-Koordinate
2.432	2.701	30	2.432	6. März 1986	430.202				
2.432	2.701	30	2.432	11. November 1993	430.300				
2.473	2.701	30	2.473	26. März 1995	412.360				
2.475	2.701	30	2.475	21. Mai 1986	412.350				
2.477	2.701	30	2.477	1. September 1993	430.300				
2.481	2.701	30	2.481	10. November 1993	431.900				
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## 2- Serve our map in a Django app

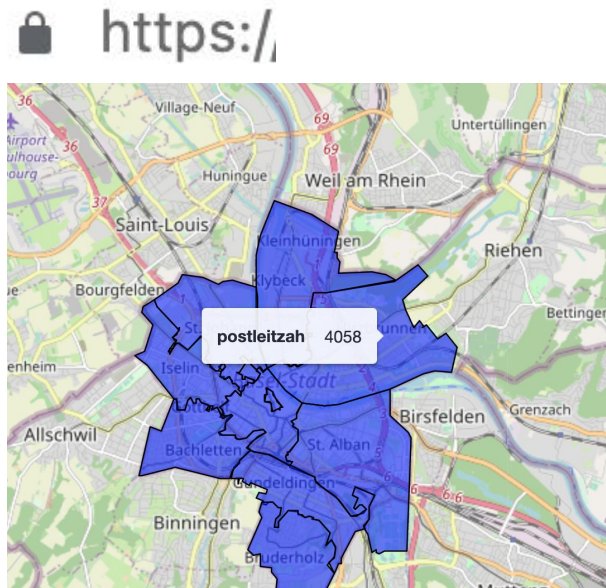
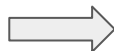
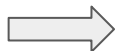
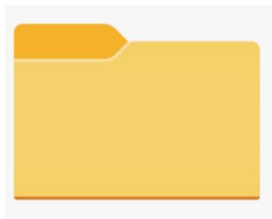
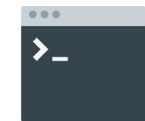
*“From html file to local website”*





# 3- Deploy the app to Heroku

*“From local website to web app ...”*



*“Thanks to Corey Schafer”*



**Corey Schafer**

925 k abonnés

# Looking forward

- Repeat and duplicate easily
- improve the process
- Beware of maintenance (Heroku , Libraries )
- Focus on what you currently like the most
  - Data prep
  - App development
  - Deployment