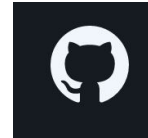


# Display Your Map on a Website Using Geopandas , Folium , Django , and Heroku ... with Git & Github

Gregory Wallace - GeoPython - Basel June 2022



# Whoami

I work in an energy distribution company in Paris

*(admin rights & internet access issues)*

Data Scientist with many use cases in geomarketing

*(use this talk for for proof of concepts - not production)*

Switched from finance to data science & GIS 5 years ago

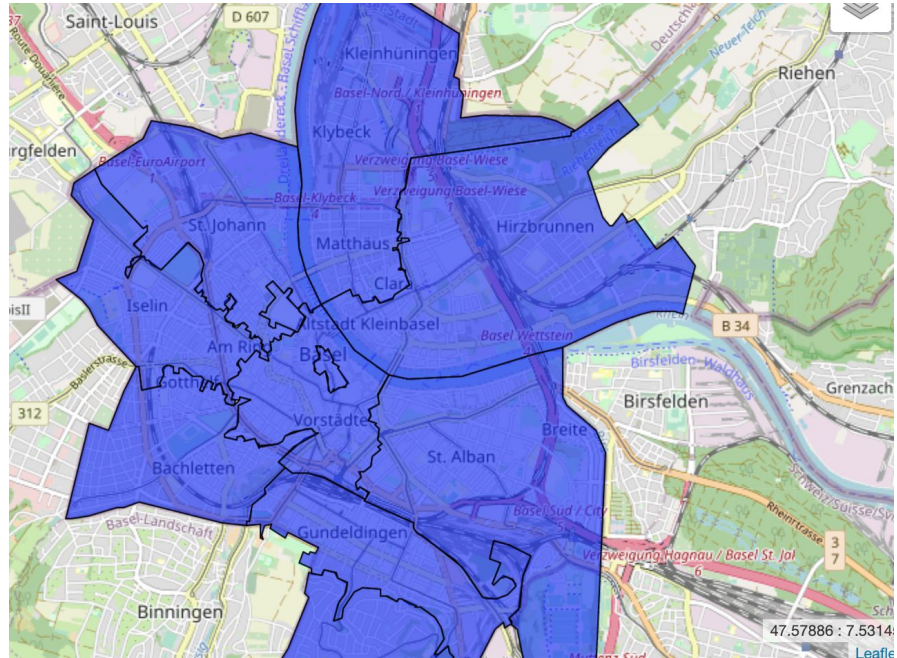
*(no expert in web dev)*

Live in la Rochelle , western coast of France & like swimming

*(there seems to be a good open air swimming pool in Basel )*



# Demo



<https://baselmap.herokuapp.com/maps>



# Agenda

1. We describe the ingredients needed
2. We use Geopandas to prepare a Folium map
3. We prepare a Django application to render the map
4. We see how to deploy to Heroku
5. We look at some pros and cons

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

# Ingredients and purpose



An OS, with python >3.6 & internet access	Install libraries & push code to Heroku
IDE of your choice	data & html file preparation
Build-in python venv	manage dependencies
Command line	navigate, start venv , push codes
Geopandas & Folium libraries	data & html file preparation
Django library	prepare the website
Git	deploy the app to Heroku
Gunicorn library - WSGI & a procfile	deploy the app to Heroku
option1 - Heroku Client (if admin rights)	manage & deploy the app on Heroku
option2 (preferred) - Github	deploy on Heroku & backup the documentation

# Geopandas to prepare a Folium map

*From data to html file*

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

41 Dateneinträge

Aktive Filter [Alle löschen](#)

Filter

Suche nach Einträgen ...

POSTLEITZAHL

4000 1

4001 1

4002 1

4003 1

4004 1

4005 1

1. März

PLZ\_ZZ

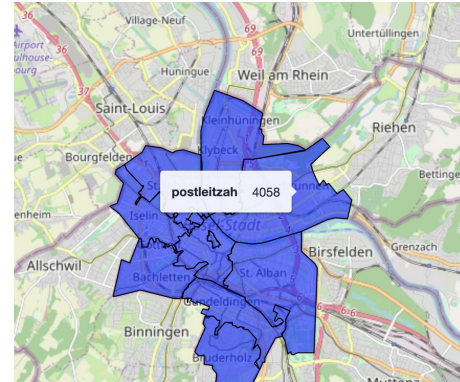
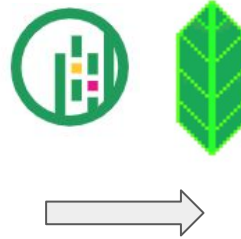
00 39

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ORTBEZ18

1. März

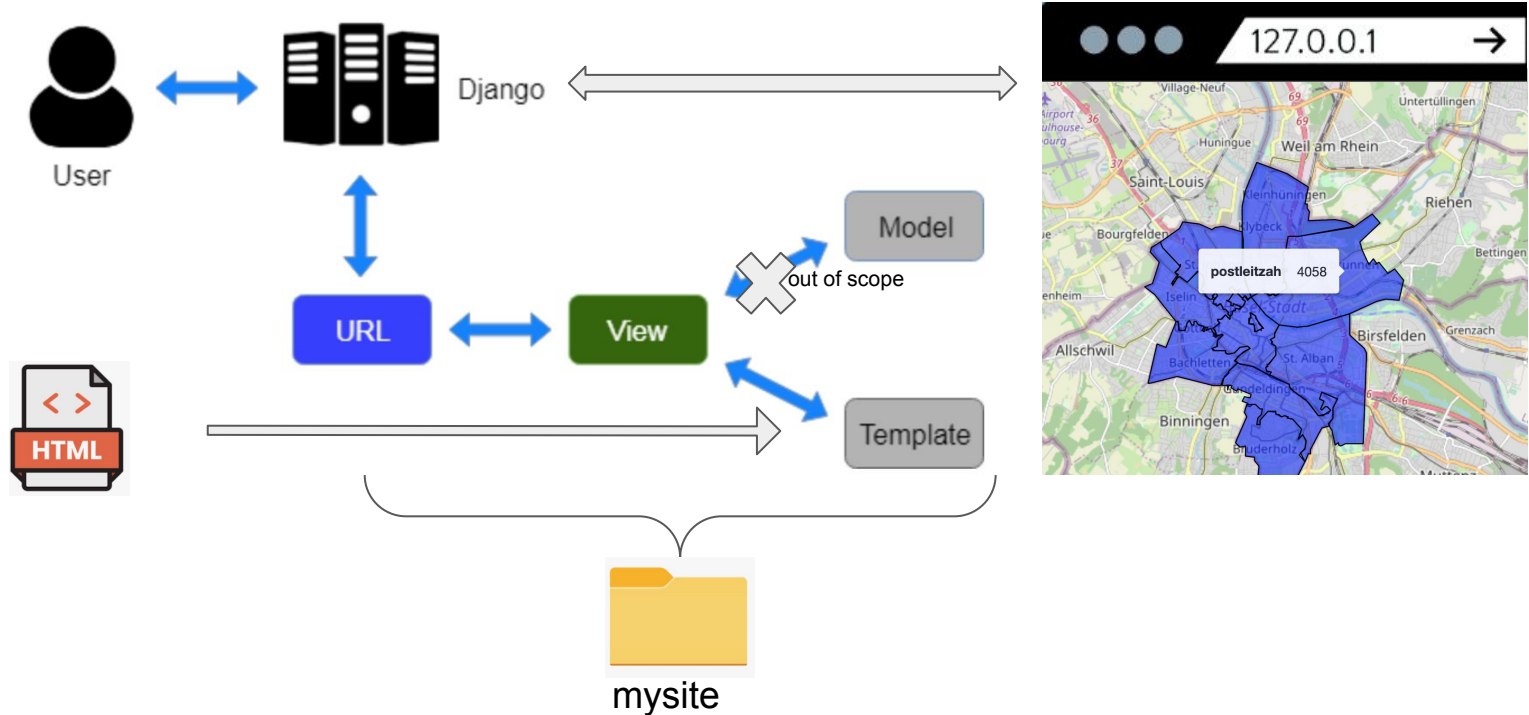
K_ABEW	CHWP	BPMW	PLZ_TYP	BREITENGRAD	GEH_ABL_201	PLZ_BREITENGRAD	PLZ_LÄNGE	Geo-Shape	Geo-Koordinate
2.432	2.701	30	2.432	6. März 1986	430.202				
2.432	2.701	30	2.432	11. November 1993	430.202				
2.431	2.701	30	2.431	29. März 1995	412.360				
2.475	2.701	30	2.475	21. Mai 1986	412.350				
2.477	2.701	30	2.477	1. September 1993	430.200				
2.481	2.701	30	2.481	10. November 1993	431.900				
2.482	2.701	30	2.482	21. Mai 1986	432.000				
2.484	2.701	30	2.484	1. Oktober 1987	430.200	/	["coordinates": [ [ [105.8080272, 47.155454330] ] ] ]		
2.487	2.701	30	2.487	1. Oktober 1987	412.360	/	["coordinates": [ [ [105.8081112, 47.154571801] ] ] ]		
2.489	2.701	30	2.489	1. Oktober 1987	412.350	/	["coordinates": [ [ [105.8080818, 47.155073918] ] ] ]		
8.106	2.701	30	8.106	1. Januar 2018	430.200				
8.105	2.701	30	8.105	1. April 2004	430.202				
2.472	2.701	30	2.472	21. Mai 1986	431.000				
2.476	2.701	30	2.476	21. Mai 1986	412.360				
2.480	2.701	30	2.480	21. Mai 1986	431.800				
2.483	2.701	30	2.483	10. September 1993	430.200				
2.486	2.701	30	2.486	10. September 1993	412.350				
2.488	2.701	30	2.488	21. Mai 1986	433.000				
2.491	2.701	30	2.491	21. Mai 1986	433.100	/	["coordinates": [ [ [106.700527005, 47.155198807] ] ] ]		
2.493	2.701	30	2.493	1. Oktober 1987	430.200	/	["coordinates": [ [ [105.781017025, 47.154571218] ] ] ]		



# Serve our map in a Django app

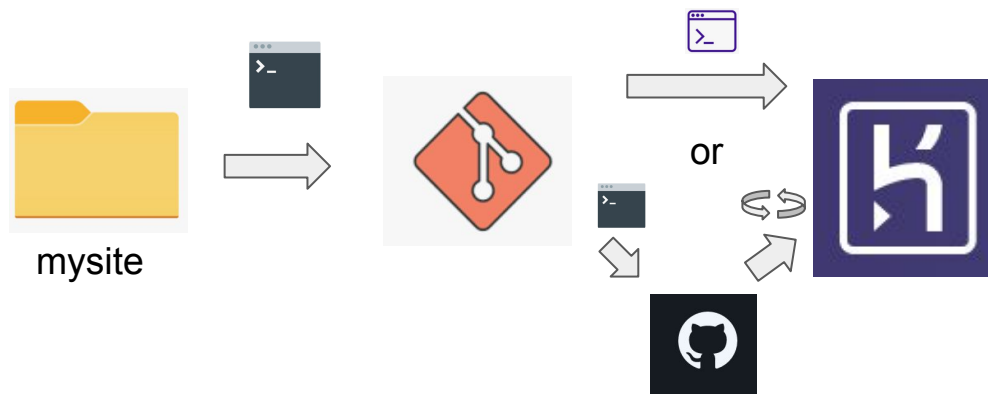
*From html file to local web site*

venv

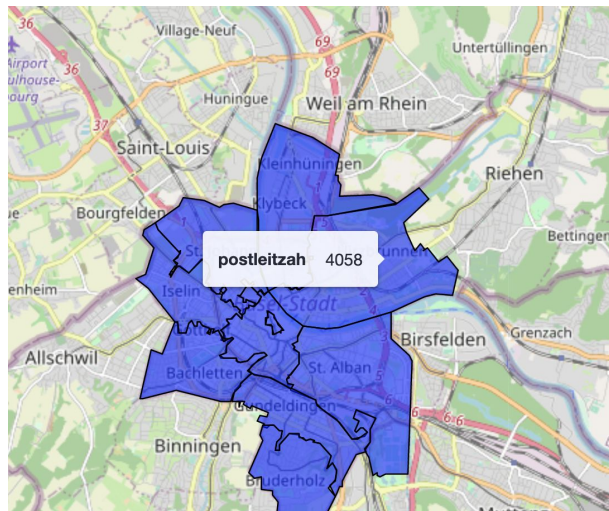


# Deploy the app to Heroku

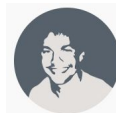
*From local website to web app*



<https://anyuniqueusername.herokuapp.com/> + ext



*With thanks to*

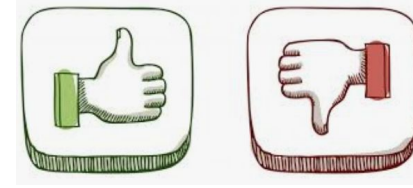


**Corey Schafer**

925 k abonnés



# Pros & Cons



Free & no admin rights	No governance
Web app can be embedded in a conversation as a link	An html file stored in a shared folder or sent via email could be fine
Once set up it is easy to iterate	Except if it breaks

