



### **Maxime Beauchemin**

mistercrunch

creator of Apache Airflow and Apache Superset - founder at Preset

#### Edit profile

At 1k followers · 11 following · ☆ 139

- preset-io
- San Mateo, CA
- @ mistercrunch.blogspot.com

#### **Organizations**

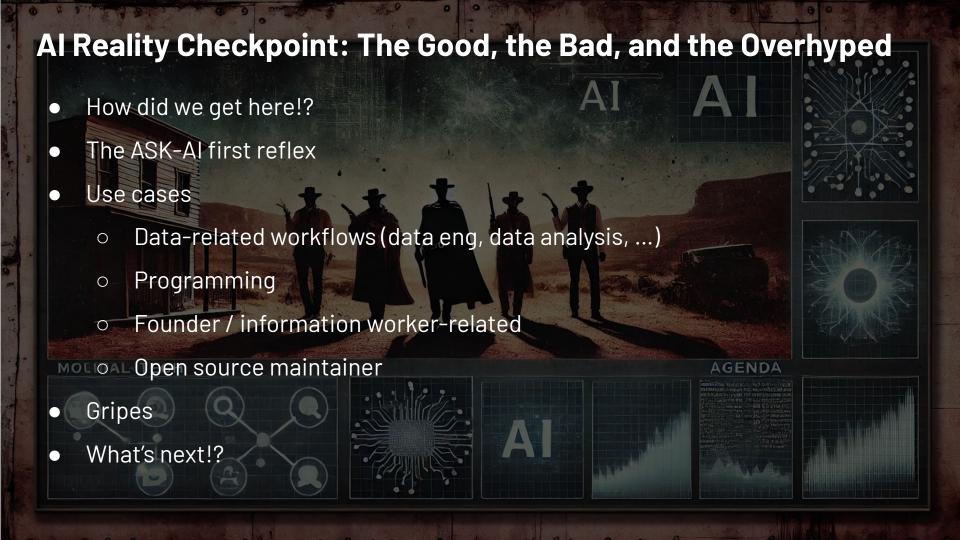


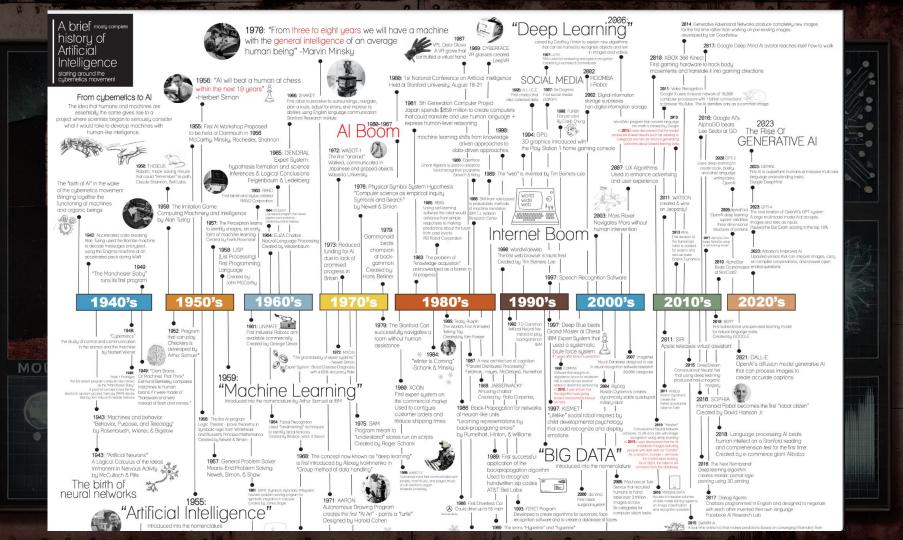
- Passionate about building data tools!
- Started Apache Airflow at Airbnb in 2014
- Started Apache Superset at Airbnb in 2015
- Started Preset The Apache Superset company in 2019



Apache Airflow

Poreset

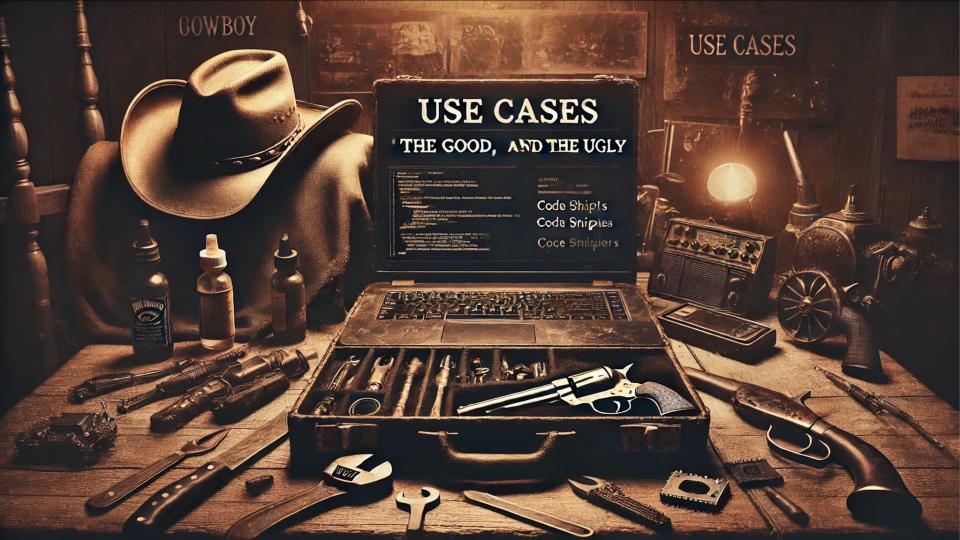




# The Perfect Storm - How Generative Al Took Off

- Advances in Neural Network Topologies
- The Internet as a Massive Public Dataset
- Compute Power Explosion & Big Data
- The Transformer Architecture (2017)
- Unsupervised Learning Breakthroughs
- The "Next Word" Eureka Moment







# As a Data Practitioner



# Good

- Al assist SQL authoring
- Scripting acceleration
- As an advisor on approach
- Suggesting code snippet
- Ideating / advising on KPIs, industry standards
- Abstract modeling questions



### Bad

- Anything that requires deep or wide context

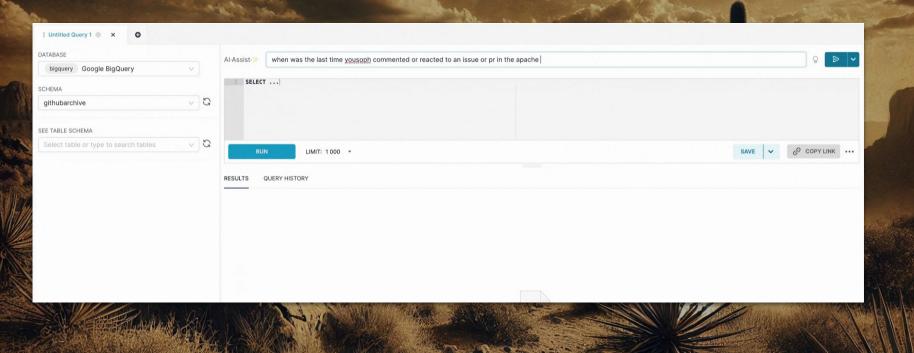
Data Engineer



## **Overhyped**

- the "Analyst Agent" idea
- RAG making progress...
- Code Interpreter (hit or miss)
- Anything that requires executive skills

# Example: authoring SQL with Al assist in Preset.io



## Example: Cloning table structures into another schema



in bigquery, I'd like to create/clone all the table structures from a dataset to another, what's the easiest way to do this?

- To clone the table structures (without the data) from one dataset to another in BigQuery, you can follow these steps:
  - 1. List all tables from the source dataset:

You can get the list of tables in the source dataset using the bq command-line tool:

bash

bq ls --format=prettyjson [project\_id]:[source\_dataset\_id]

This will list all the tables in the source dataset.

2. Use bq mk to create the new tables in the target dataset:

For each table, you can copy the schema and create an empty table in the new dataset. Here's a simple example using bq:

bq mk --table [project\_id]:[target\_dataset\_id].[table\_name] [project\_id]:[source

Example: Assisted me in writing "entity-centric data modeling" blog



DATA ENGINEERING

# **Introducing Entity-Centric Data Modeling for Analytics**

Maxime Beauchemin April 06, 2023 in 🔰 🊳 🔊







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### Context

In this blog post, I am introducing entity-centric data modeling (ECM), a new approach to data modeling for analytics that elevates the core idea of an "entity" (ie: user, customer, product, business unit, ad campaign, etc) at the very top of things. Many of the ideas here are not new and are inspired by combining concepts from dimensional modeling and feature engineering - pushing to anchor on "entities" and to actively bring metrics and more complex data structures inside dimensions.



# As a Software Engineer





### Good

- Autocomplete! GH copilot & Codeium plugins
- Functional programming (over object orient)
- Refactoring! js -> ts, type hints, migrations
- Unit tests generation
- Jinja templates for prompts
- Naming things



### Bad

- Anything that requires deep or wide context
- API usage lots of hallucinations unpredictable
- 00P inheritance



## Overhyped

- the "Programmer Agent" idea
- Anything that requires executive skills

## Wrote 80%+ of the README and code for Promptimize



Apache-2.0 license







License Apache 2.0 pypi package 0.2.3





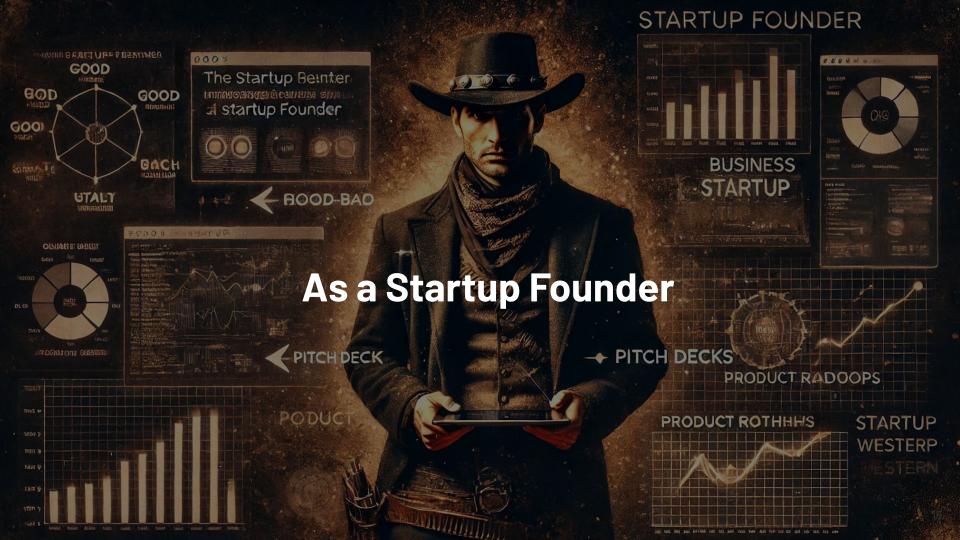
Promptimize is a prompt engineering evaluation and testing toolkit.

It accelerates and provides structure around prompt engineering at scale with confidence, bringing some of the ideas behind test-driven development (TDD) to engineering prompts.

With promptimize, you can:

- Define your "prompt cases" (think "test cases" but specific to evaluating prompts) as code and associate them with evaluation functions
- · Generate prompt variations dynamically
- · Execute and rank prompts test suites across different engines/models/temperature/settings and compare results, brining the hyperparameter tuning mindset to prompt engineering
- Get reports on your prompts' performance as you iterate. Answer question around how different prompt suites are performing against one-another. Which individual cases or categories of cases improved? regressed?





GOOD

HITCHERD

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GIZURACH

# As a Startup Founder

The Startup Beinter unmussioned a startup Founder

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STARTUP FOUNDER



### Good

- Product marketing
- Judgment-free thought partner / advisor
- Content generation
- Comms / advice
- Legal / advice



TCH

### Bad

- Running your company



PITCH

# **Overhyped**

- Anything that requires executive skills
- Staffing Al won't replace 80% of your opex, at least not just yet

# Example: Crafting a customer email



hey I have some evidence that some of our paid customers are user service accounts and therefore breaking our TOS, can you help me write an email to the account owner?



Sure thing. Here's a draft for your email:

Subject: Clarification Needed on Account Usage

Hi [Customer Name],

I hope this email finds you well. After reviewing your account activity, we've noticed some indications that it might be used by service accounts, which falls outside the scope of our terms of service for paid users.

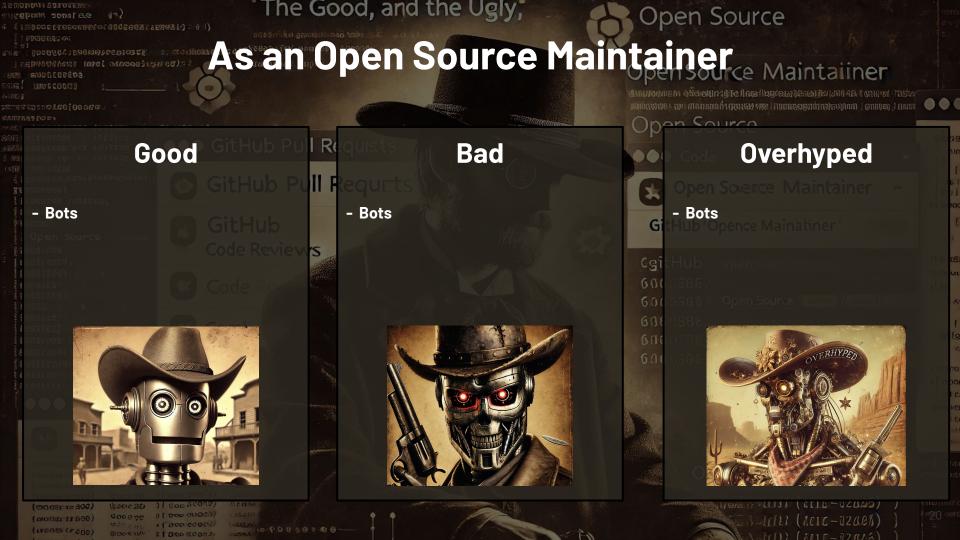
To ensure we're aligned, can you confirm whether any of your seats are being used by non-human or automated accounts? If so, we'll need to discuss how to bring the account into compliance with our policies.

Please let me know if you'd like to set up a quick call to go over any questions or clarify further.

Thanks for your attention to this,

Max





# Example: Sensitive / thoughtful community comms

hey! I just got CCed as the chair of Apache Superset for what seems to be a geo-political issue in relation to the maps we exposed in Superset. Note that I have no opinion on the matter, and would rather stay out of any political topic as an open source maintainer. I'm worried that our actions, whatever they may be, or inaction may be interpreted as taking as side. I'd love to push on the Apache Software Foundation to provide clear guidelines and handle communications around such topics. Here's the related thread, please provide email draft for me answer to the internal communication:

Orignial message to the apache mailing list:

Subject: Re: Map-related geopolitical concerns in Superset

Hi DW,

Thanks for reaching out and for your thoughtful approach to this issue.

As an open-source project, Apache Superset aims to be a neutral platform that serves a global audience. Given the sensitivity and complexity surrounding geopolitical topics like this, I believe it's crucial for us to avoid taking any particular stance that could be interpreted as political.

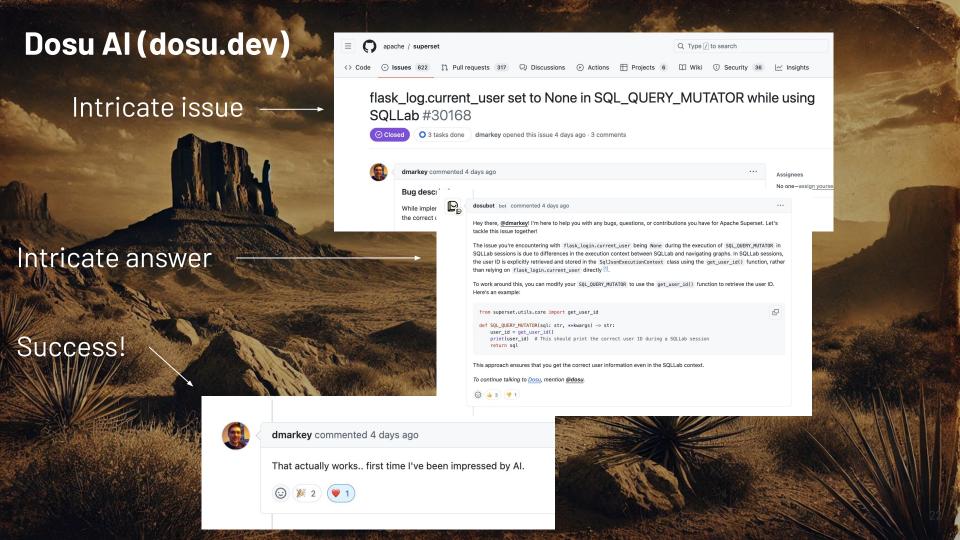
This is a space where clear guidance from the Apache Software Foundation (ASF) would be incredibly valuable. I would suggest that ASF consider establishing a set of guidelines or protocols to help projects like Superset navigate these geopolitical challenges. It would help ensure that we remain aligned with the Foundation's values and avoid unintentionally stepping into political disputes.

In this specific case, I think it's important to clarify the source of the maps we are using and ensure they follow some globally recognized standards, such as those provided by the UN. That way, we can stay focused on providing a technical solution while maintaining neutrality.

I'd love to see ASF take the lead on managing communications around these sensitive issues, ensuring that projects like ours can continue to focus on their technical mission without being drawn into political debates.

Happy to discuss further if needed, and let me know if you need anything else from me to help guide the next steps.

Best regards, Max



# Kapa.ai + RunLLM

(as featured on our Slack's #ask-ai)

### Here:

- 2 bots offer different answers
- Long conversations ensues







t. >>> K 37 replies Last reply 3 days ago



#### **ZHE CHONG LOW** 9:03 PM

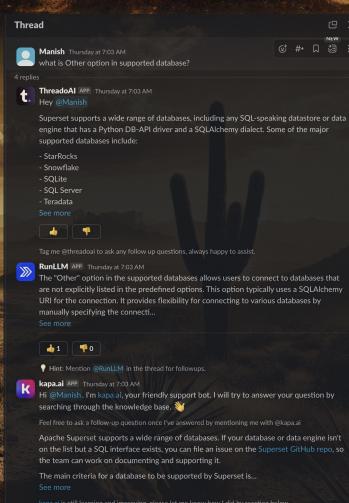
how to enable CSV upload in superset







9 replies Last reply 4 days ago









#### Oguzhan Deniz Saturday at 4:15 PM

Jinja template ile iki farklı veri setinde bulunan aynı veriyi tek bir dashboardda nasıl filtreleme işlemi yapabilirim?



#### ThreadoAl APP Saturday at 4:15 PM

Hey @Oguzhan Deniz

To filter the same data from two different datasets in a single dashboard using Jinja templates, you can follow these steps:

#### 1. Create Filters in the Dashboard:

- Start by adding filters to your dashboard. You can do this by selecting the right arrow to expand the Filter area and then choosing "+ Add/Edit Filters."
- In the "Add and edit filters" window, enter a name for your filter and select the appropriate dataset and column.

#### 2. Use Jinja Templating:

- Jinja templating allows you to create dynamic queries that can handle complex filtering logic. You can use Jinja to ensure that the filters apply correctly across different datasets.
- For example, you can create a filter that applies an OR condition instead of an AND condition by using Jinja syntax in your query.

#### 3. Map Filters to Charts:

- Ensure that the filters are correctly mapped to the charts. You can do this by selecting the "Scoping" tab in the filter settings and mapping the filter to the relevant charts.
- If you have charts from different data sources, make sure each chart's dataset is configured to accept the filter.

#### 4. Test the Filters:

- After setting up the filters, test them to ensure they work as expected. Apply the filters and check if the charts update correctly with the filtered data.

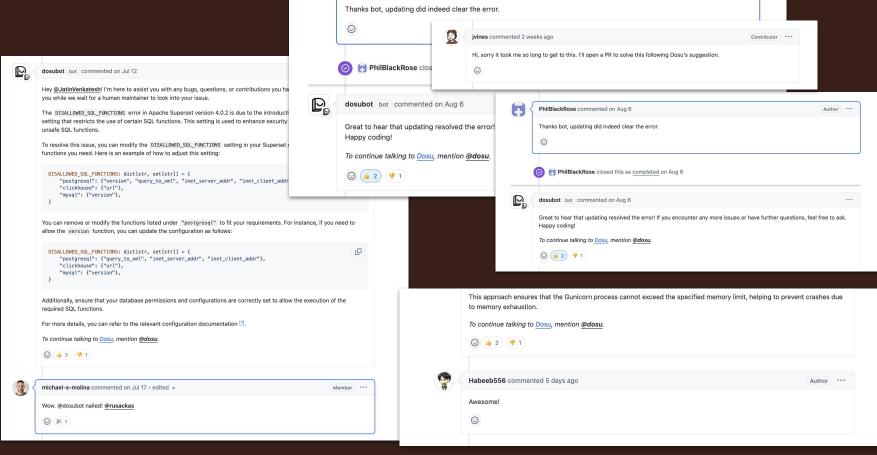
For more detailed guidance on using Jinja templating in Apache Superset, you can refer to these resources:

- [Superset SQL Templating](https://superset.apache.org/docs/installation/sql-templating/)
- [Intro to Jinja Templating in Apache Superset](https://preset.io/blog/intro-jinja-

I hope this helps! If you have any further questions, feel free to ask. Sources:



### Dosu



PhilBlackRose commented on Aug 6

Author

# **Gripes!**

- Is GPT getting stupider over the 4-o cycle?
- GPT is incredibly verbose STFU!
- Al always one-shots the answer, never asks for clarification
- Hallucination guesses how APIs should work
- Don't answer from weights, search the damn web!



# Wrapping up with some related thoughts

- This is still the first inning this talk is already obsolete!
- Intelligence / computation / energy limits? No problem.
- RAG/integration implementation are promising but clunky
- Trust still an issue work needs expert validation
- Great for creative workflows and ideation be careful where correctness matters
- Highly encourage people to develop their "first reflex"



