Srinivas Edala

cnvs.edala@gmail.com | 512-630-2155 | 11115 Ashbury Meadows Dr, Dayton OH 45458 | Open Nationwide

Data Scientist, Gnyan (2023 – Present)

- Deliver Data Modernization Solutions, ETL Pipelines, Machine Learning Algorithms, Big Data Processing Engines, Artificial Intelligence Systems, MLOps Workflows, Computer Vision Capabilities, Natural Language Processing Modules, Neural Network Architectures, Evolutionary Programming Routines, and GenAI Agents
- Develop Cloud Ready IaaS, PaaS, SaaS, Serverless, Container, Infrastructure-as-Code Solutions

Data

Product Manager, Elsevier (2003 – 2024)

- Lead Product Experience Designer for Elsevier Science Digital and Mobile Solutions.
- Conduct market research, user research, solution discovery, iterate A/B designs, engineer solutions, participate in GTM planning and release milestones.
- Benchmark omnichannel KPIs and manage continuous evolution iterations. Administer accessibility review board charter and compliance.

Product

Experience (2003-present)

Certifications

- PhD (incomplete), Wright State University, 2004
- Masters in Human Factors Engineering, Wright State University, 2002
- Masters in Computer Science, Andhra University, 1999

Education (US)

Innovator, Founder

- Founder of Data Consultancy http://data-bloom.com
- Founder of AI Consultancy http://gnyan.ai
- 2002 DAGSI Eminent Scholar
- Patent Grantee
- 30+ Publications
- Program Review, GTM Chair

Recognition (Industry)

Python	R	AWS	Azure	GCP	Hadoop	Hive	Spark	Kafka	Flume	Sqoop	Flink	Hudi	EMR	Synapse	Snowflake
Databricks	Redshift	BigQuery	Looker	PowerBI	Qlik	Superset	Metabase	DBT	Airflow	Airbyte	Deequ	Great Exp	Alteryx	Nifi	Camel
Pandas	Polars	Storm	Datahub	Collibra	Alation	BigEye	Informatica	IaaS	PaaS	SaaS	Docker	IaC	Kubernetes	Terraform	AutoML
SageMaker	AutoML	XGBoost	Jupyter	MLFlow	Git	Jenkins	Docker	IPC/RPC	TensorFlow	PyTorch	Keras	Hugging Face	OpenAI	GPT	Ollama
LangChain	LlamaIndex	FastAI	LLaMA	Diffuser	Transformer	CNN	RNN	Clustering	Classification	Regression	Deep Learning	Gen AI	Forecasting	Anomaly Detection	Entity Recognition
Image Processing	Object Detection	Sentiment Analysis	Intent Mining	Translation	Dim Factorization	NLP	Computer Vision	NLP	Speech Processing	Neo4j	JanusGraph	Graph Frames	NetworkX	Sentence Xformers	Embeddings
Quantization	Linear Prog	A/B leaderboards	Hyper Params	ONNX/PB	Artifactory	Balsamiq	Figma	Miro	Splunk	Elastic	Grafana	Trino	Helm	Flutter	NextJS

Skills Table (Data, ML, BD, AI, Gen AI, UX)

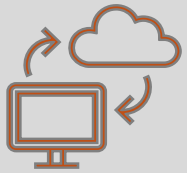
Building Science, Driving Outcomes

AI Gold Rush

We sell shovels

http://gnyan.ai

Our Data Services (1 Pager)

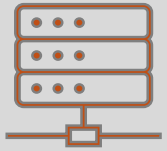


Cloud Modernization

Scalable Cloud first FedRAMP Solutions

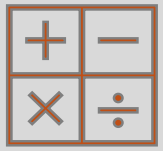
Generative AI

Modern Mixed Intelligence Outcomes



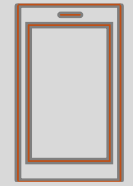
Analytics Engineering

Drive outcomes from raw data



Data Science

Deploy Advanced Machine Learning Algorithms

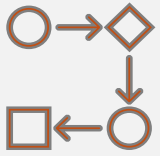


Edge/IoT Engineering

Situational In-Field Solutions

Accessible Insights

24/7 Information; every person, every device

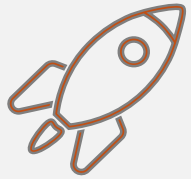


IT/OT/RPA Modernization

RPA Technology to Support People & Processes

NLP/Document Digitization

Mining structured knowledge from physical media

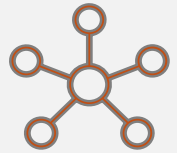


Rapid Innovation

Explore and Engineer New Innovations like Blockchain, Quantum

Optimization

Drive progressive preemptive strategies



Intelligence Research

Transitive intelligence from disparate geo-temporal sources

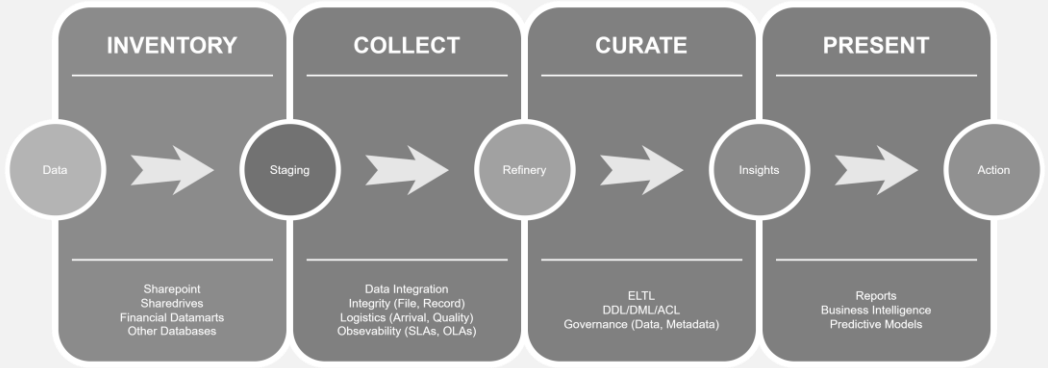
Search

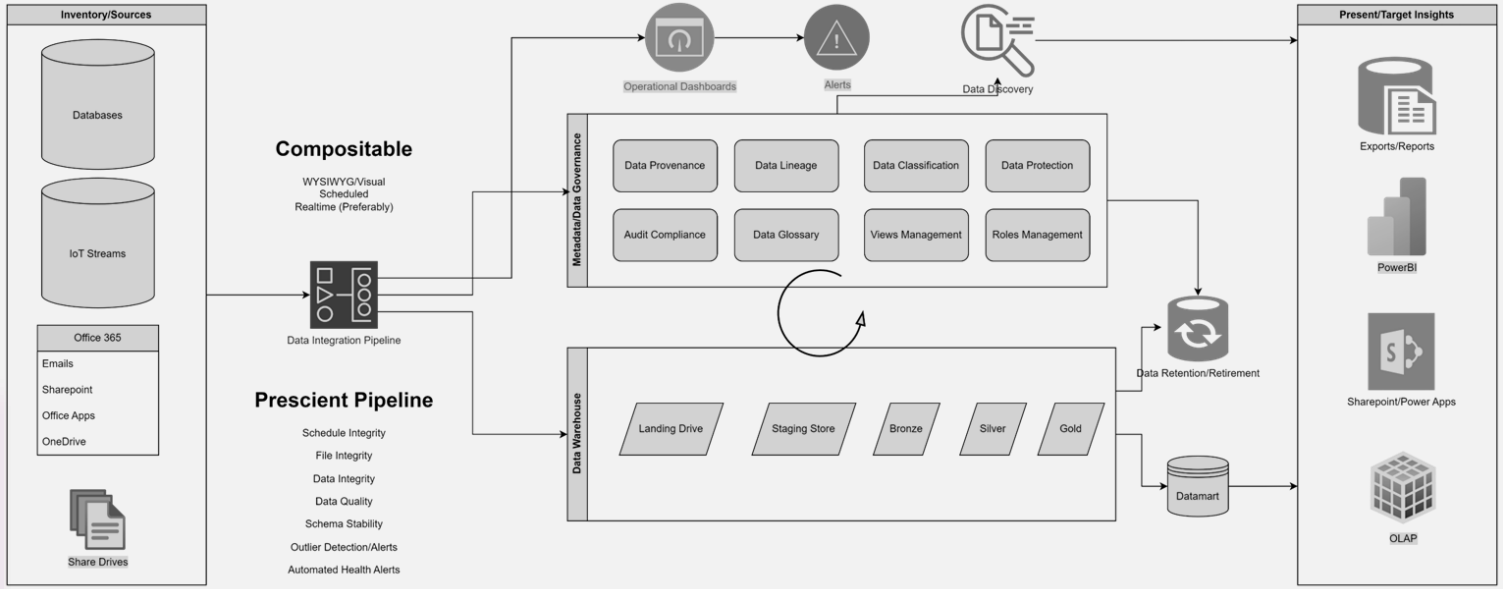
Multimodal, Personalized Semantic Search & Retrieval

Addressing Data Platform, Tooling Challenges

Integration
Quality
Exploration
ETL Refinery
Governance & Management
Reporting
Business Intelligence
Data Science
MLOps
Data Marketplaces

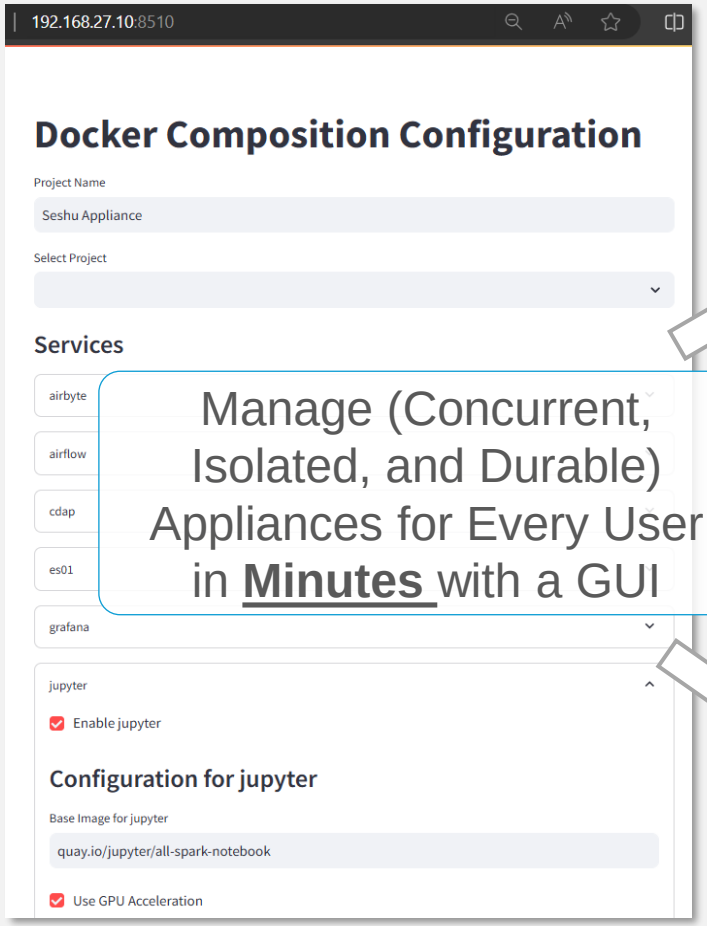
challenge: do your data professionals have the right compute, ai, warehouse, devops tooling?



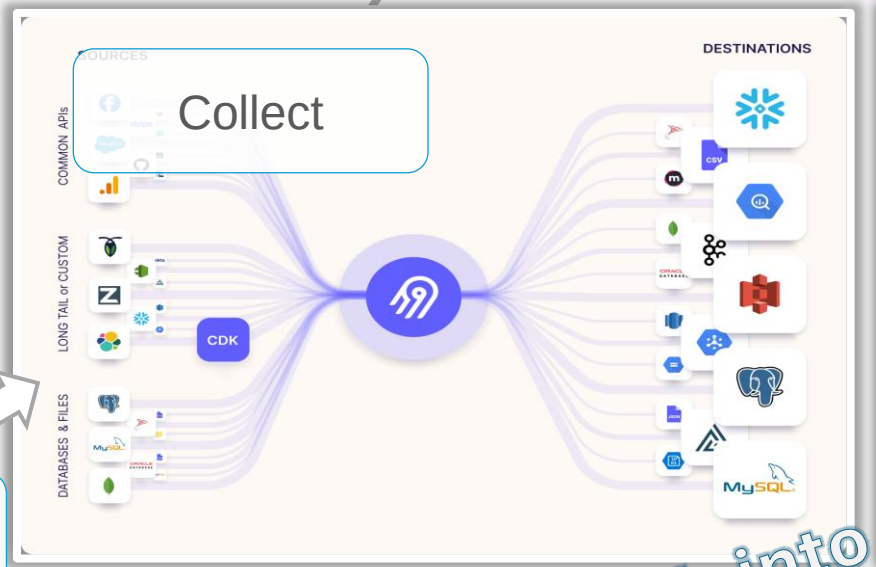


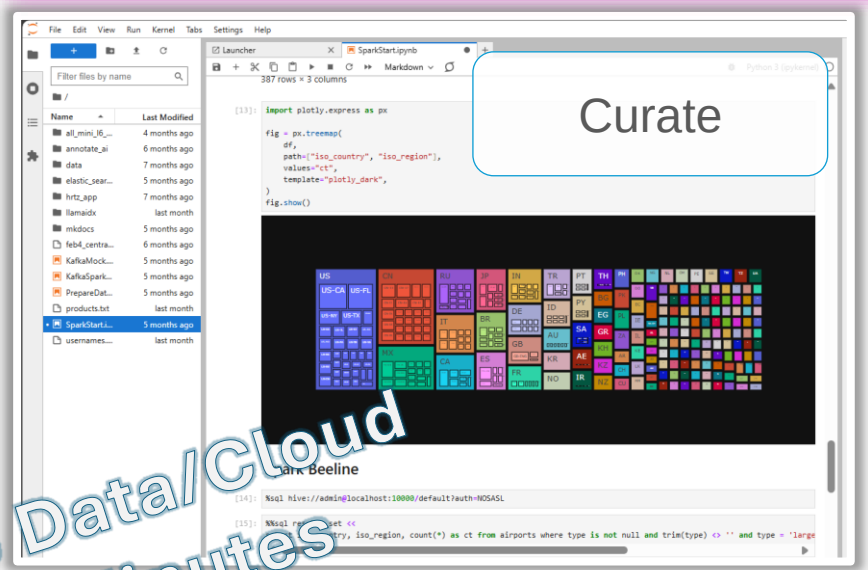
Self-Service Analytics Appliance (Warehouse-on-the-Go)

demo: whirr analytics infrastructure for everyone in under 5 minutes

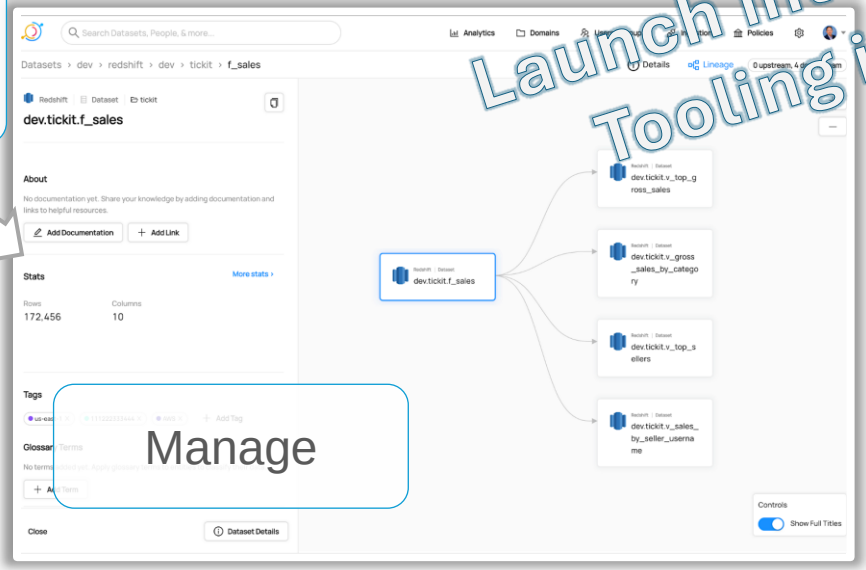


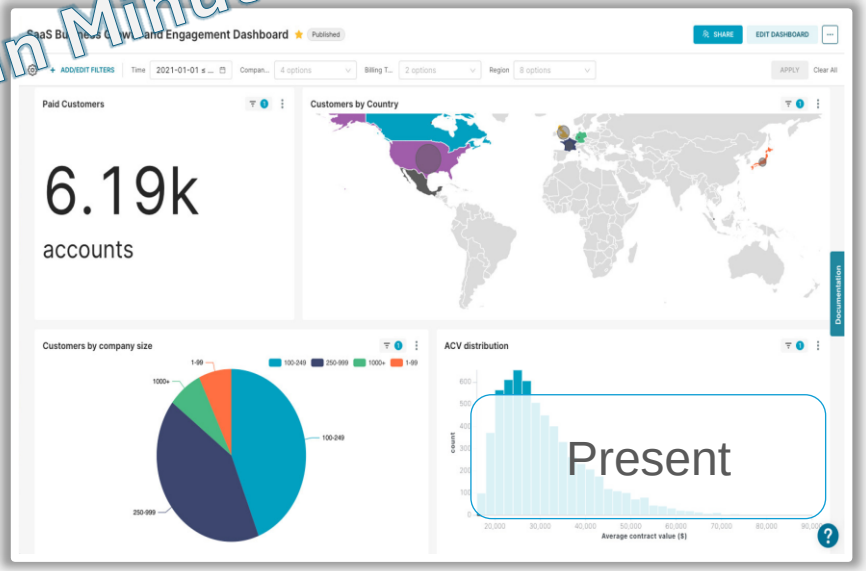
Manage (Concurrent, Isolated, and Durable) Appliances for Every User in **Minutes** with a GUI





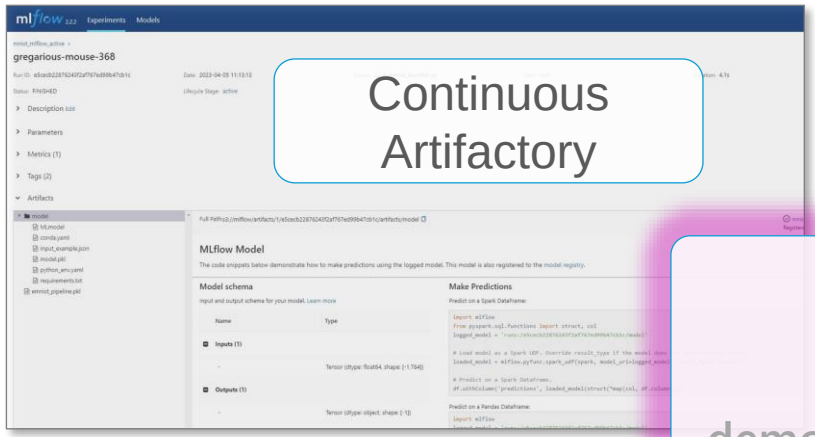
Launch into Data/Cloud Tooling in Minutes



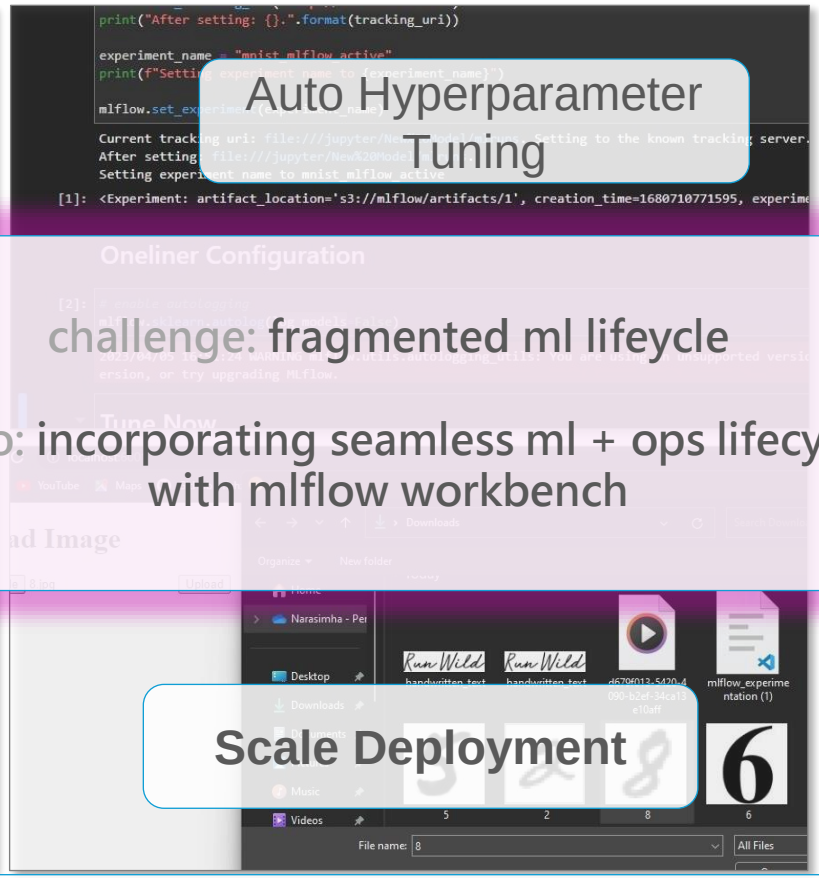


From Data to Solutions (Swift MLOps)

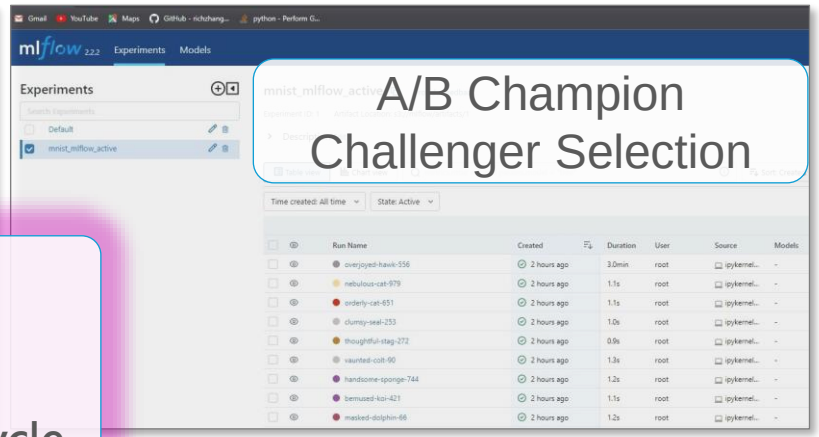
MLOps Demo.zip



Continuous Artifactory



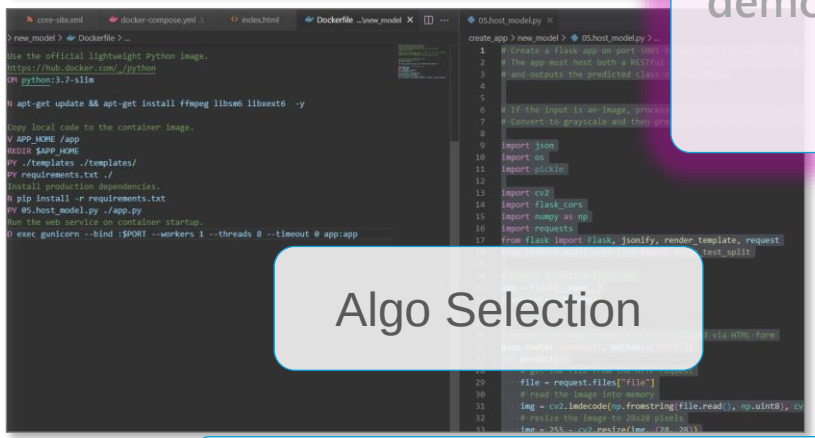
Auto Hyperparameter Tuning



A/B Champion Challenger Selection

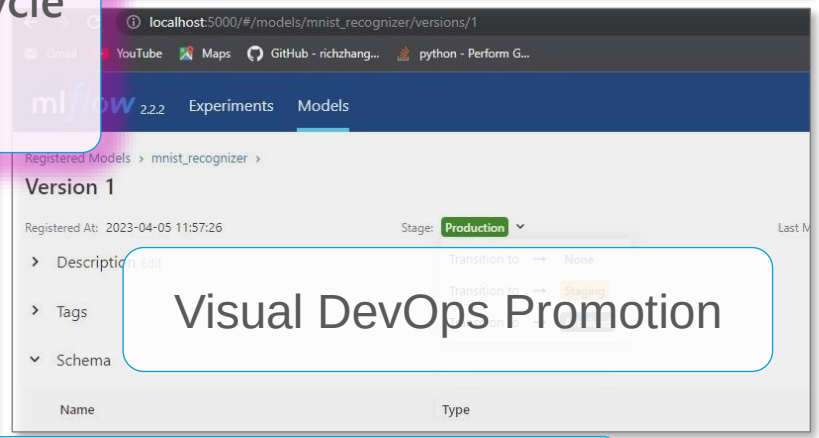
challenge: fragmented ml lifeycle

demo: incorporating seamless ml + ops lifecycle with mlflow workbench



Algo Selection

Scale Deployment

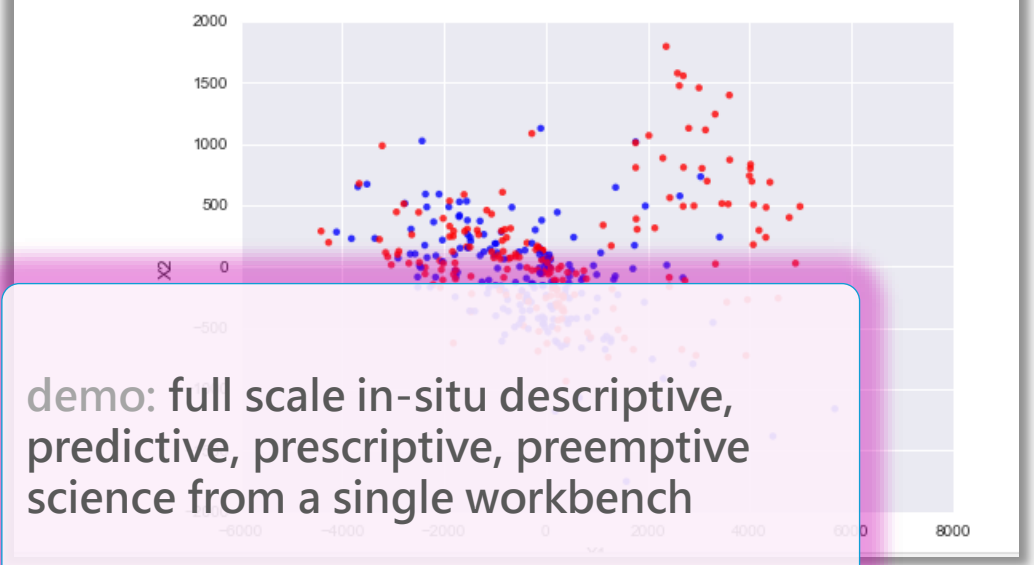


Visual DevOps Promotion

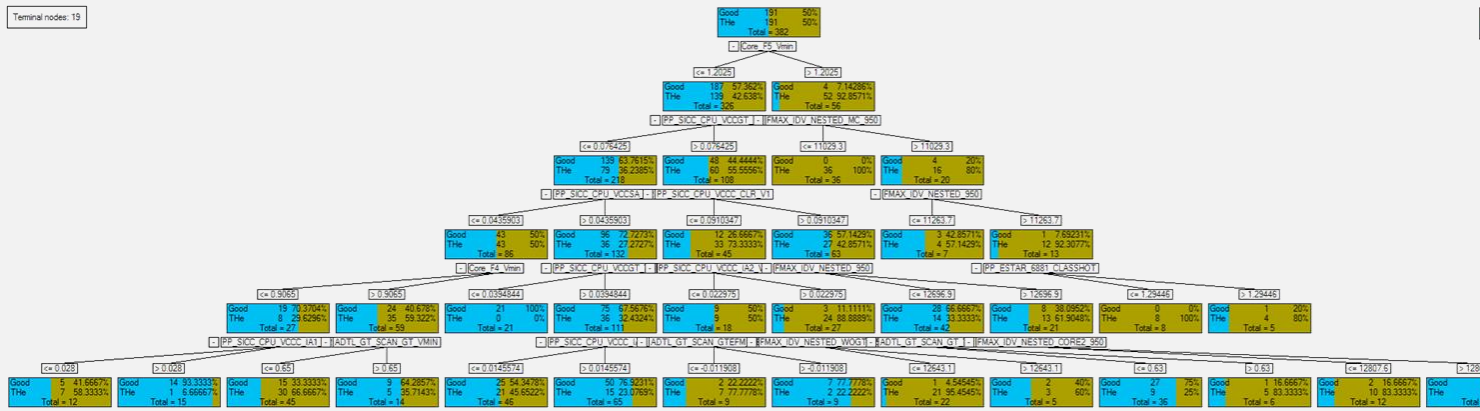
Catalyze Continuous Evolution with ML Leaderboards

Descriptive & Prescriptive Modeling (ML)

```
pca = PCA(n_components=2)
pipeline = Pipeline([('pca', pca)])

In [20]: reduced_x = pipeline.fit_transform(numeric_x)
X_r2 = pd.DataFrame(reduced_x, columns=['X1', 'X2'])

# Percentage of variance explained for each components
print('Explained variance ratio (first two components): %s'
      % str(pca.explained_variance_ratio_))
ax = sns.regplot(data=X_r2, x='X1', y='X2', x_jitter=10**2, y_jitter=10
plt.show()

Explained variance ratio (first two components): [ 0.8605536   0.055053
```



demo: full scale in-situ descriptive, predictive, prescriptive, preemptive science from a single workbench

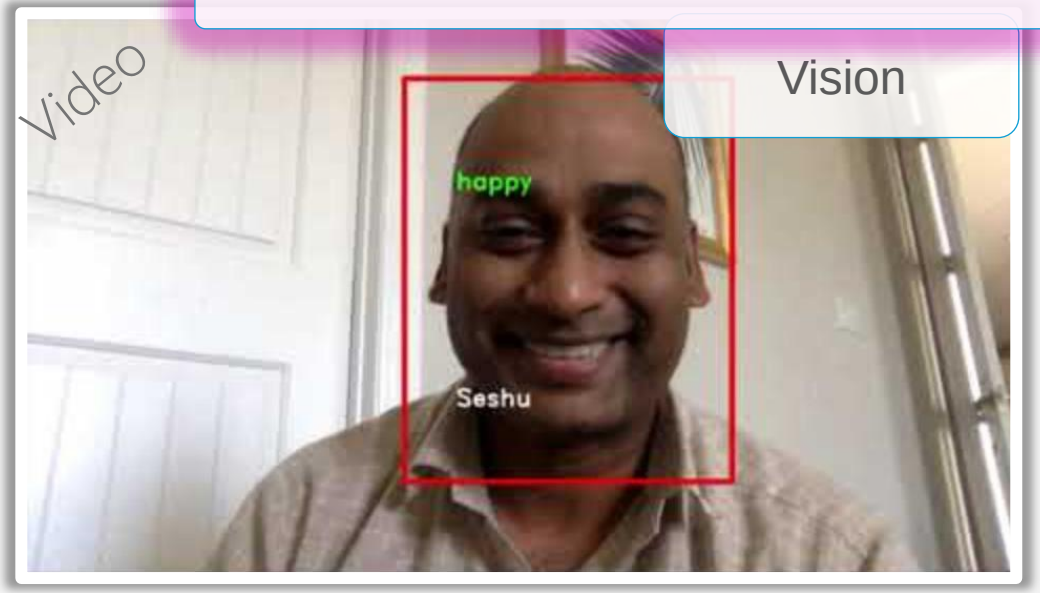


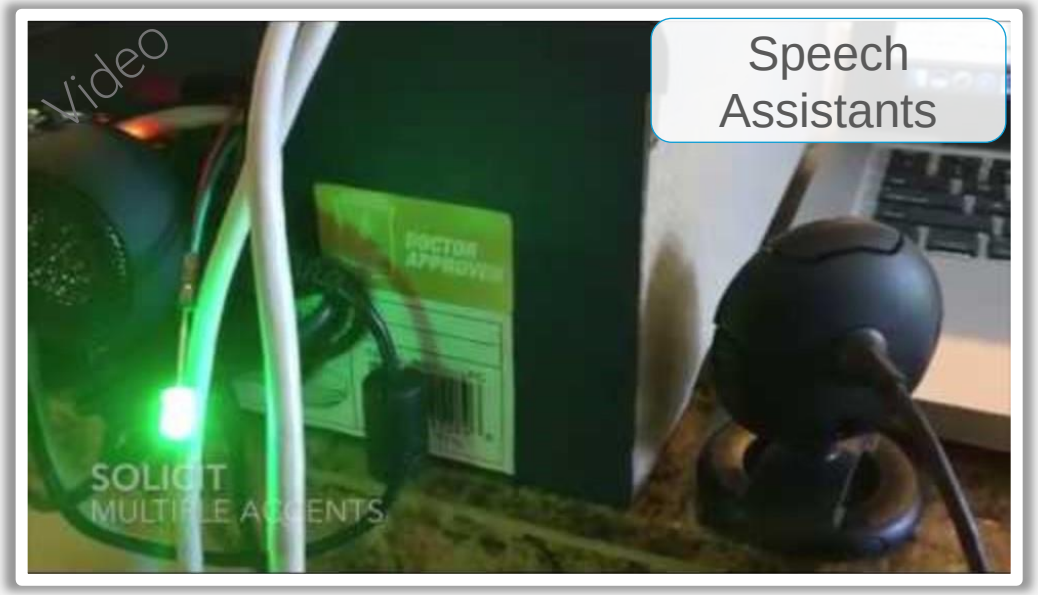
Cluster+LSD+Pictures (2).html

DPMCorrelationsSpecificThe.html

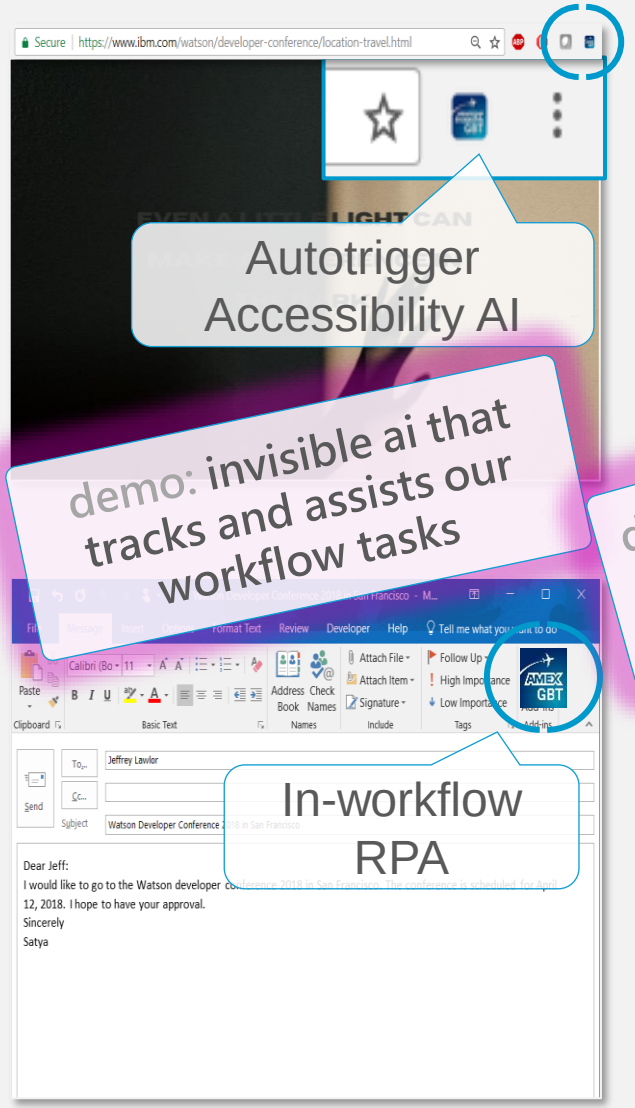
AI Sensory Intelligence (AI)

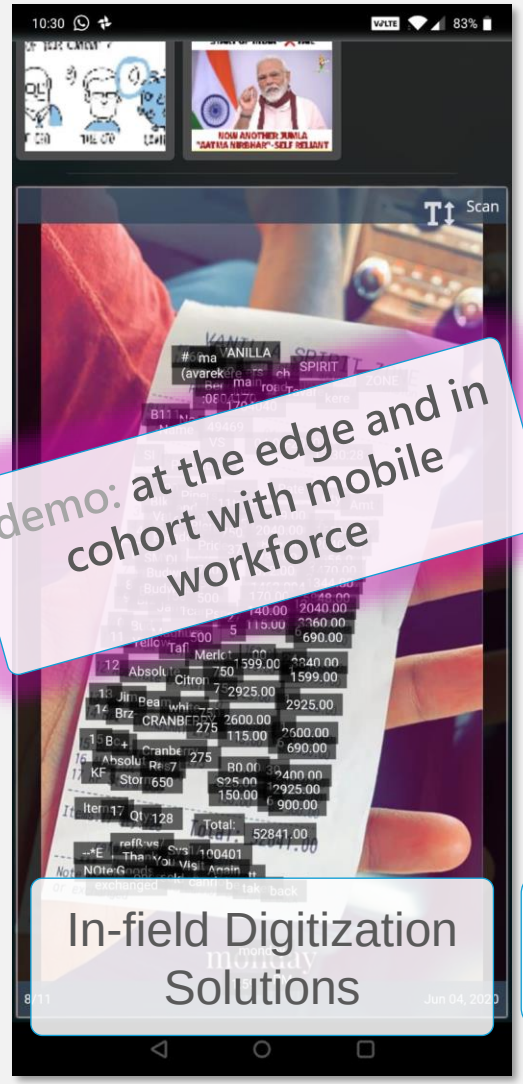
demo: circa 2016, ai doing sensory actions: senses that belonged to human realm

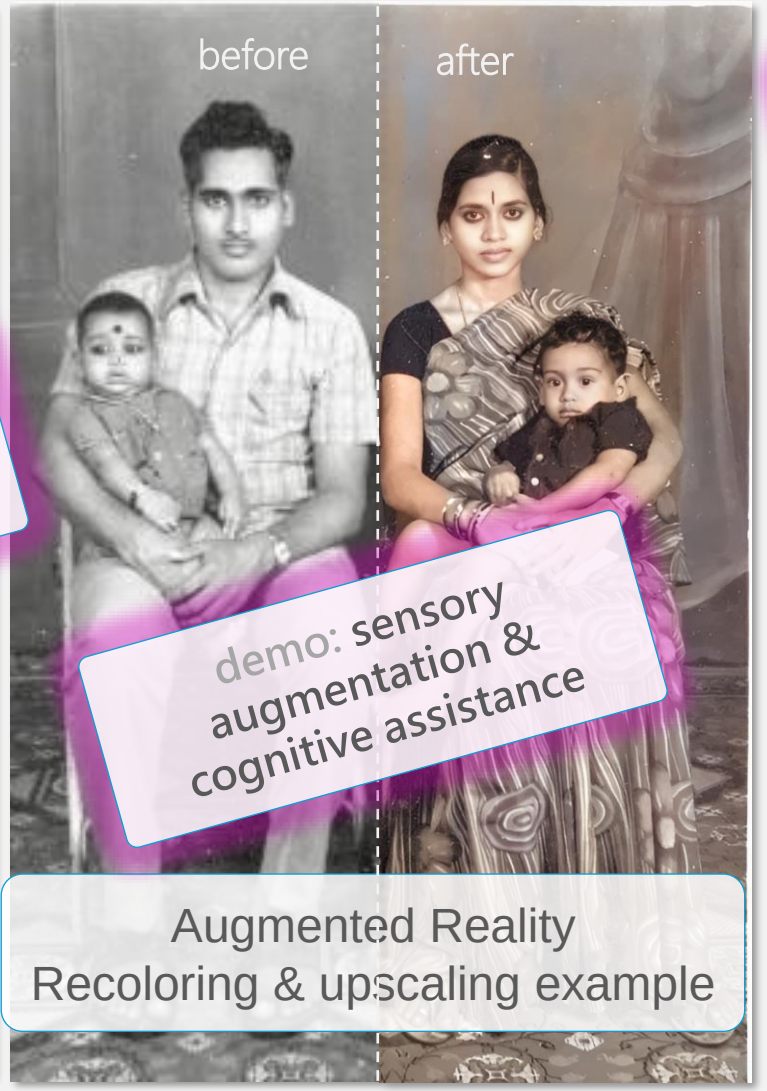


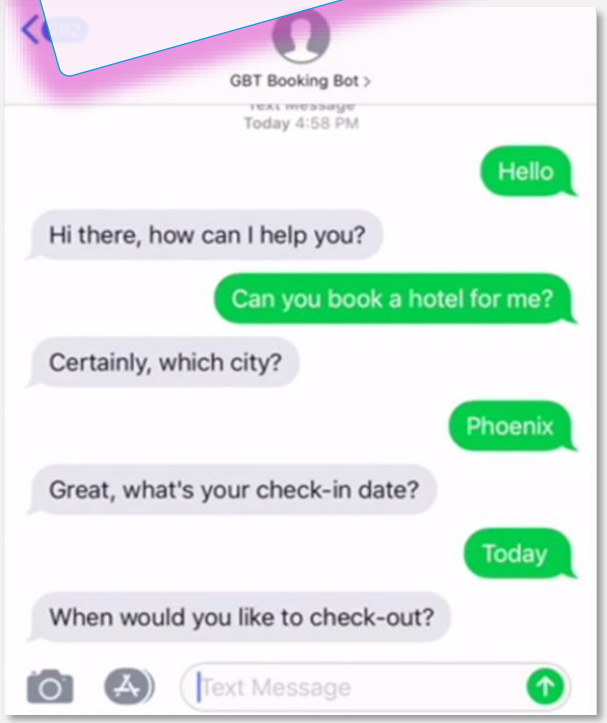


Accessibility & In-Situ Integration (Edge RPA)







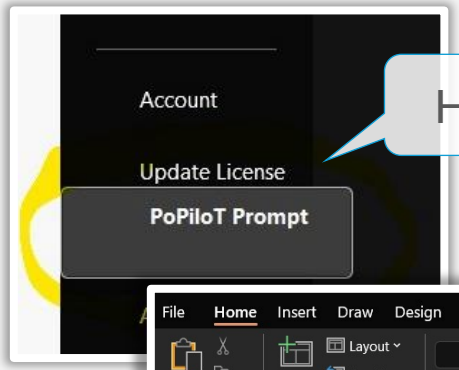


Front, Mid, Backoffice
Bot Integration

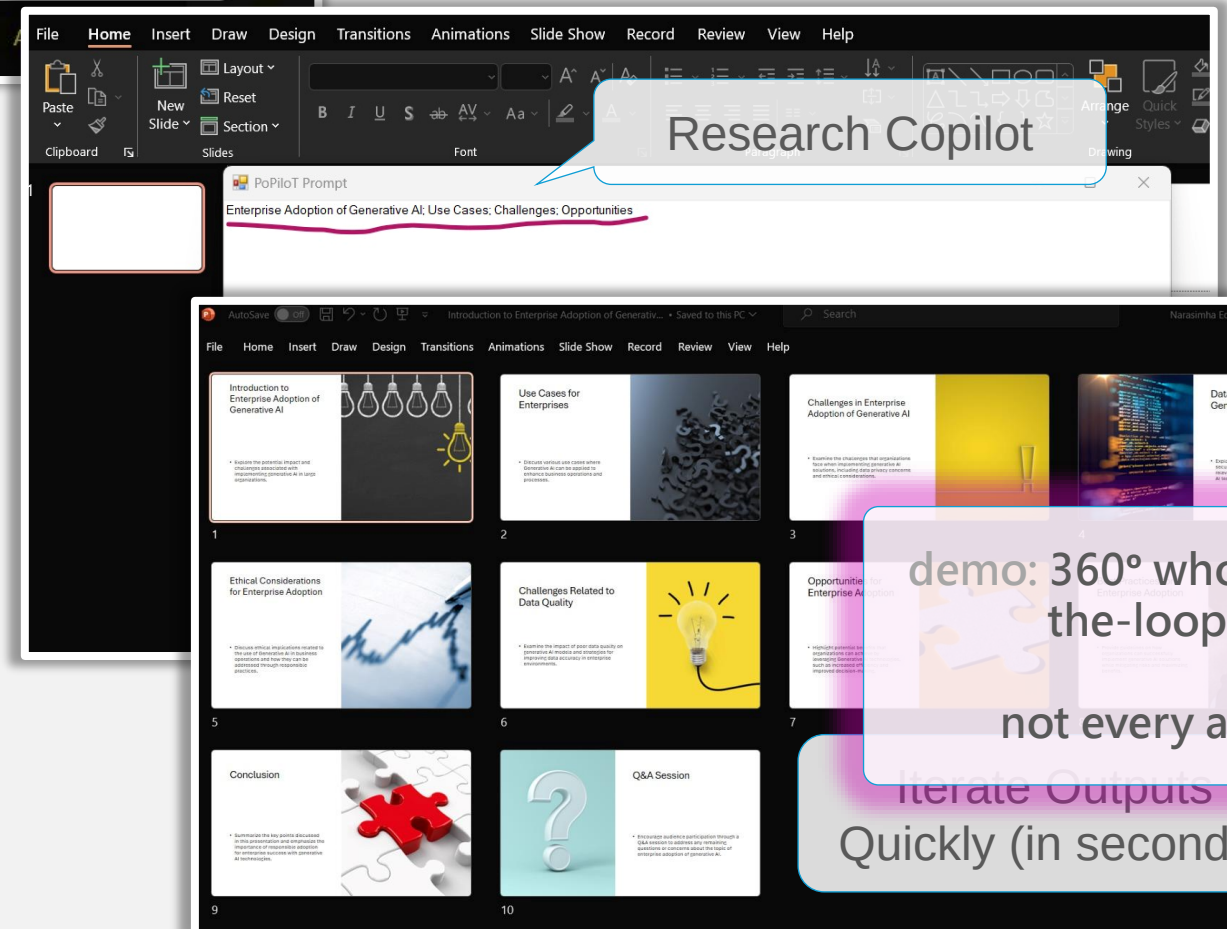
Generative AI

Bespoke Agent Central for the Enterprise

Human-on-the-loop



10 second slides



Research Copilot

demo: 360° wholistic human-on-the-loop outcomes

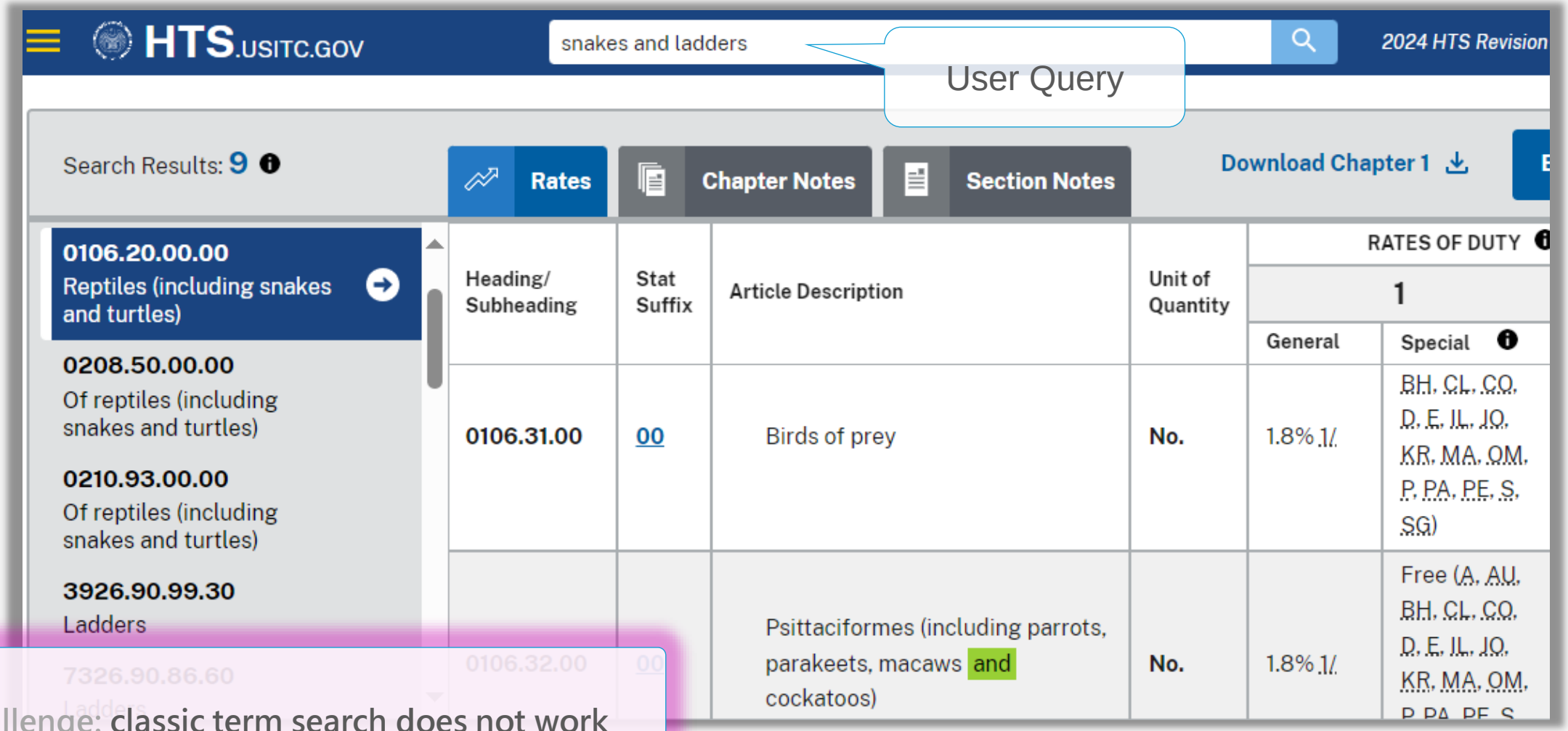
not every ai is a chatbot

Iterate Outputs Quickly (in seconds)

Code Dev	Governance Steward	Digital Twin Agents
Language Translation	Research Librarian	Business Anomaly Monitor
TLDR Summarizer	RFP Bid Writer	Infographic Analyst
Office Research Toolbar	Course Instructor	NAICS/HS Classifier
Accessibility Helper	Code Conversion Agent	CloudOps Agent
Front Office Chatbot	Brand Sentiment	Code Vulnerability Patching
Data PCI/PII Watchdog	Directory Router	Data Quality Curator
Spiritual Wellbeing Agent	BI SQL Assistant	Competitive Intelligence Agent

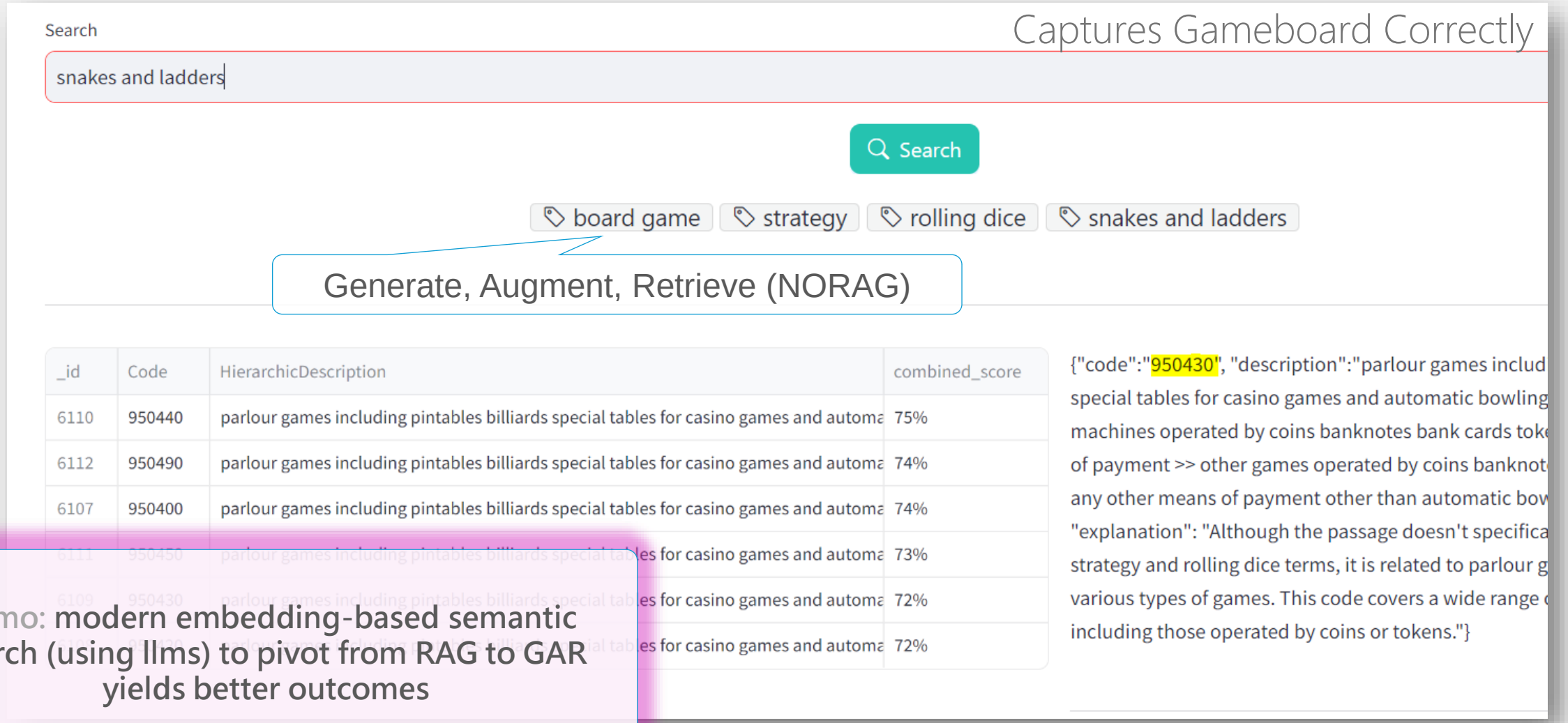
Keyword Coding

Misses the context

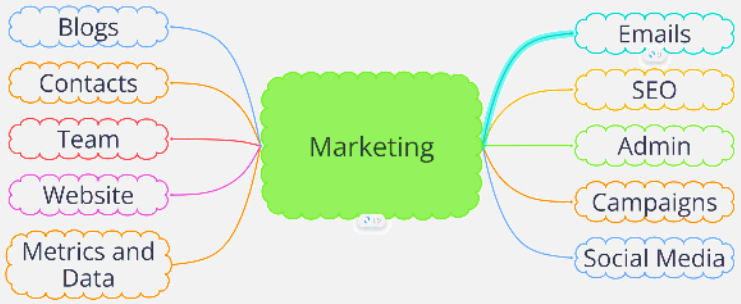


challenge: classic term search does not work

Intent Understanding



demo: modern embedding-based semantic search (using llms) to pivot from RAG to GAR yields better outcomes

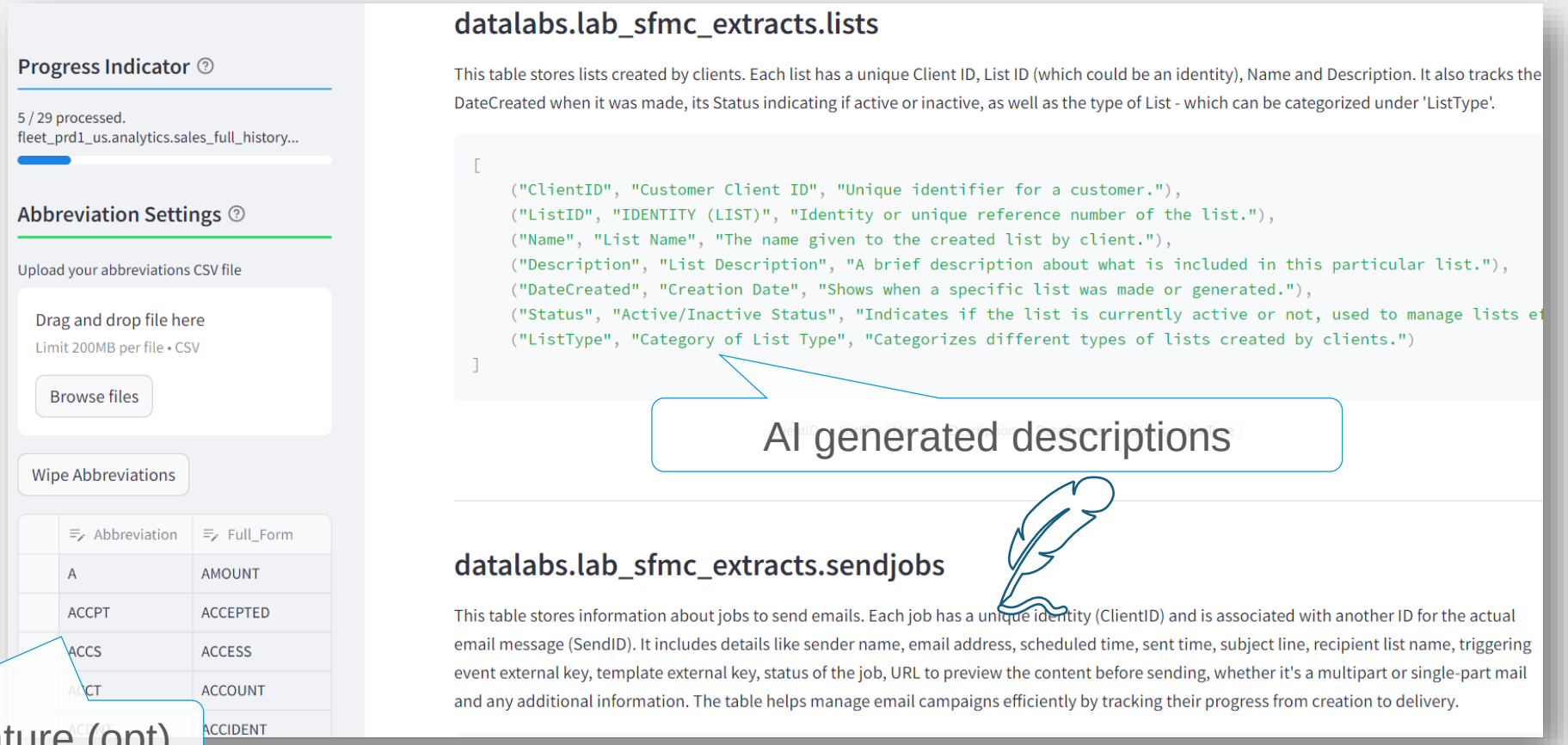


challenge: **everyone has a data warehouse. but is it cataloged and annotated for good use?**

demo: **let ai dig deep and annotate databases, tables, columns, and contents to help the stewards**

1) Delve deep into Lakehouses

2) Let mixed intelligence annotate thoroughly



Feed business nomenclature (opt)

Locate Data

Search Query

Industry average price of technology stocks in 2017

Search

Clear history

3) Locate assets & compose SQL with ease

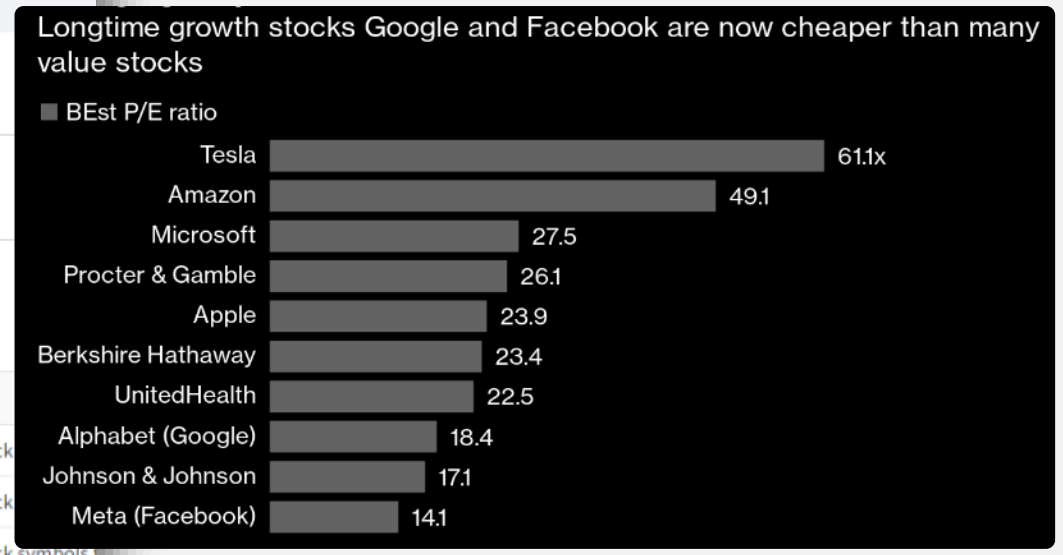
Query: Industry average price of technology stocks in 2017

Vector Results:

	_id	_score	table_catalog	table_schema	table_name	table_description
0	minio_default_s_and_p_mapping_name:varchar	9.7345	minio	default	s_and_p_mapping	This table maps stock
1	minio_default_s_and_p_mapping_sector:varchar	9.6782	minio	default	s_and_p_mapping	This table maps stock
2	minio_default_s_and_p_mapping_symbol:varchar	9.6336	minio	default	s_and_p_mapping	This table maps stock symbols
3	minio_default_s_and_p_5_years_name:varchar	6.274	minio	default	s_and_p_5_years	This table tracks stock and price
4	minio_default_s_and_p_5_years_high:double	6.2627	minio	default	s_and_p_5_years	This table tracks stock and price
5	minio_default_s_and_p_5_years_close:double	6.2572	minio	default	s_and_p_5_years	This table tracks stock and price
6	minio_default_s_and_p_5_years_open:double	6.2416	minio	default	s_and_p_5_years	This table tracks stock and price
7	minio_default_s_and_p_5_years_date:date	6.2142	minio	default	s_and_p_5_years	This table tracks stock and price
8	minio_default_s_and_p_5_years_low:double	6.2017	minio	default	s_and_p_5_years	This table tracks stock and price
9	minio_default_s_and_p_5_years_volume:integer	6.1546	minio	default	s_and_p_5_years	This table tracks stock and price

SQL Query:

```
SELECT AVG(close) AS avg_price
FROM minio.default.s_and_p_5_years ssp, minio.default.s_and_p_mapping sm
WHERE ssp.symbol = sm.symbol AND sm.sector LIKE '%Technology%';
```

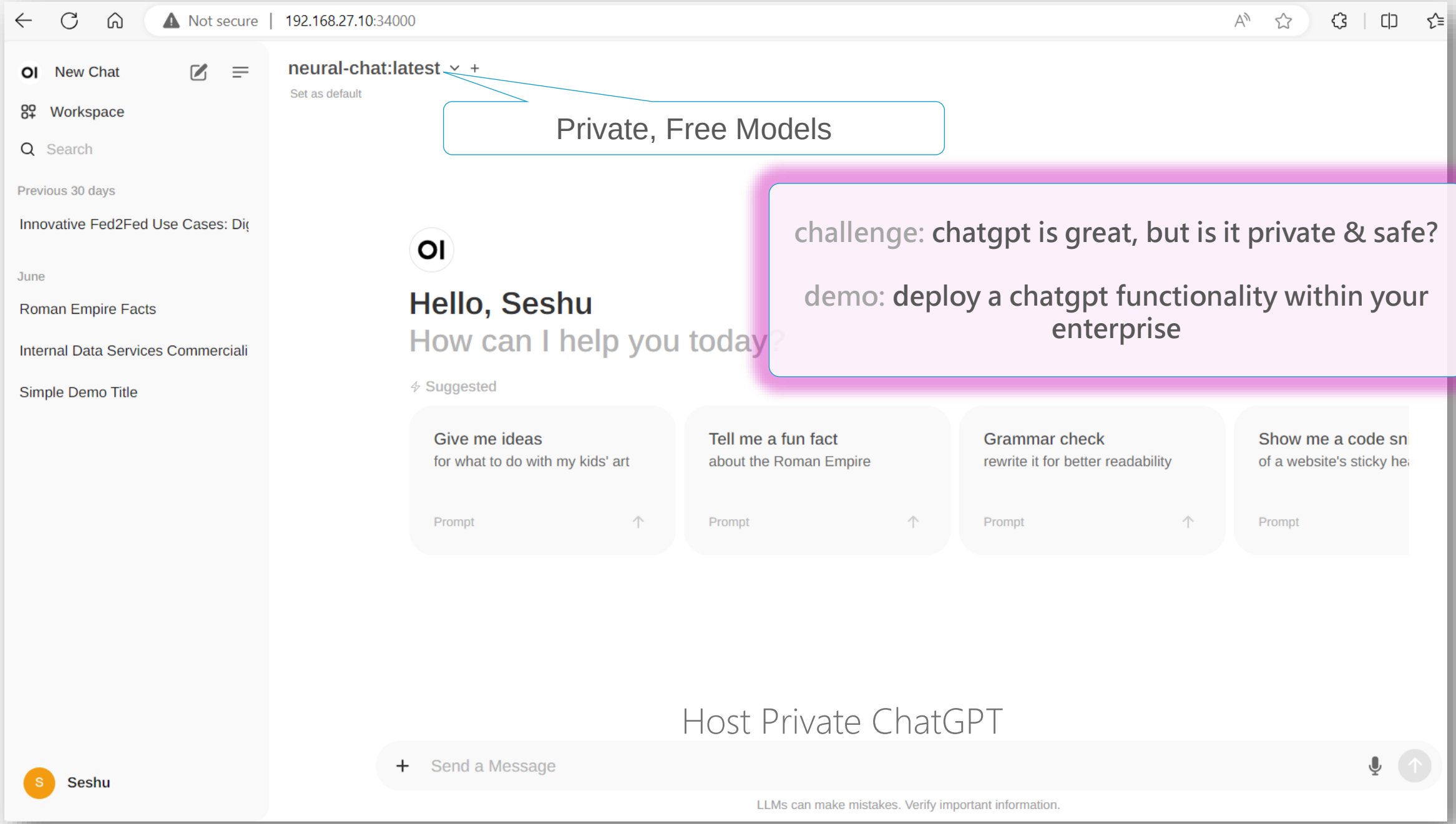


4) Elicit insights from English

challenge: **sql and bi skills are not universal**

demo: **let ai discover, author, and deliver insights**

Machine Generated Insights


Not secure | 192.168.27.10:34000
New Chat
Workspace
Search
Previous 30 days
Innovative Fed2Fed Use Cases: Di
June
Roman Empire Facts
Internal Data Services Commerciali
Simple Demo Title
Seshu
neural-chat:latest
Set as default
Private, Free Models
challenge: chatgpt is great, but is it private & safe?
demo: deploy a chatgpt functionality within your enterprise
Hello, Seshu
How can I help you today?
Suggested
Give me ideas
for what to do with my kids' art
Prompt
Tell me a fun fact
about the Roman Empire
Prompt
Grammar check
rewrite it for better readability
Prompt
Show me a code sn
of a website's sticky he
Prompt
Host Private ChatGPT
Send a Message
LLMs can make mistakes. Verify important information.

Not secure | 192.168.27.10:34000/c/4f88e290-91f0-400b-ad93-78716312e45d

New Chat

Workspace

Search

Today

Building location

Judge Bio (3 words)

Previous 30 days

Innovative Fed2Fed Use Cases: Di

June

Roman Empire Facts

Internal Data Services Commerciali

Simple Demo Title

Seshu

llava:latest

Where is this building?

Omni Models

llava:latest

This building is the Supreme Court of the United States, located in Washington, D.C., at the corner of First and A Streets, N.E.

2/2

Private, Secure Outcomes

Who presides here?

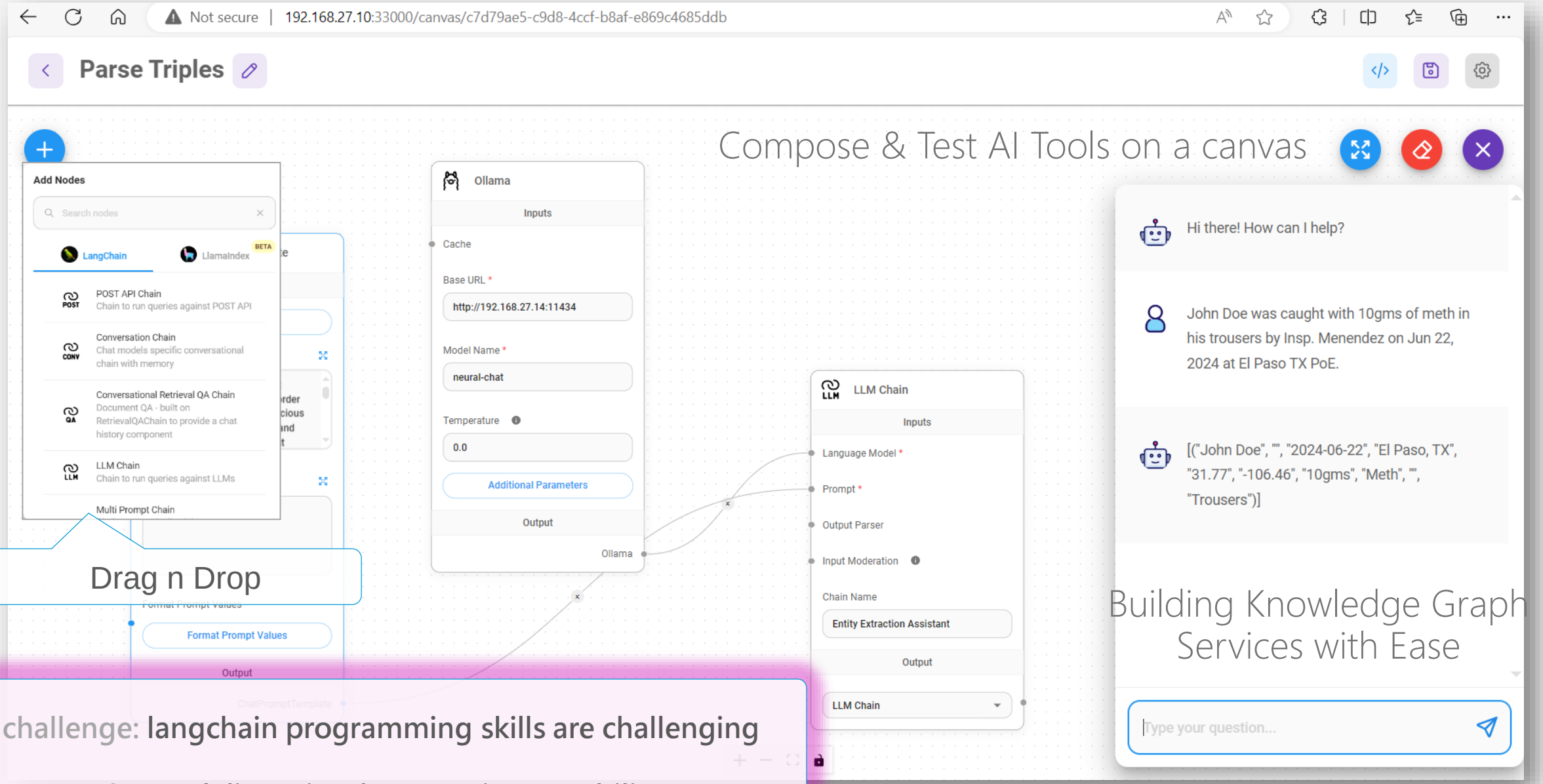
llava:latest

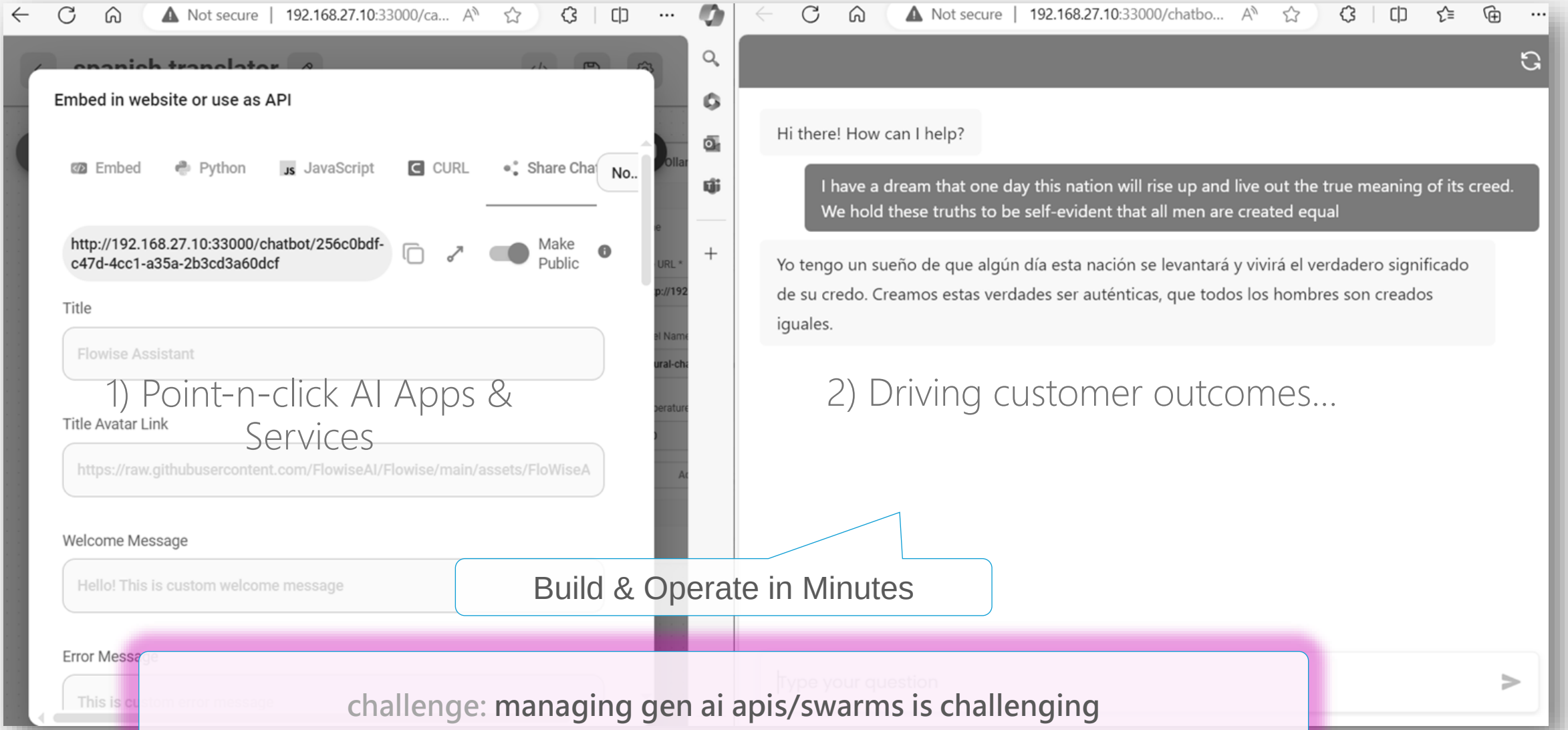
2/2

challenge: **can open models beat commercial performance?**

demo: **yes, plug-n-play open models easily**

Send a Message


Not secure | 192.168.27.10:33000/canvas/c7d79ae5-c9d8-4ccf-b8af-e869c4685ddb
Parse Triples
Compose & Test AI Tools on a canvas
Add Nodes
Search nodes
LangChain
LlamaIndex
BETA
POST API Chain
Chain to run queries against POST API
Conversation Chain
Chat models specific conversational chain with memory
Conversational Retrieval QA Chain
Document QA - built on RetrievalQAChain to provide a chat history component
LLM Chain
Chain to run queries against LLMs
Multi Prompt Chain
Drag n Drop
Format Prompt Values
Output
Ollama
Inputs
Cache
Base URL *
http://192.168.27.14:11434
Model Name *
neural-chat
Temperature
0.0
Additional Parameters
Output
Ollama
LLM Chain
Inputs
Language Model *
Prompt *
Output Parser
Input Moderation
Chain Name
Entity Extraction Assistant
Output
LLM Chain
Hi there! How can I help?
John Doe was caught with 10gms of meth in his trousers by Insp. Menendez on Jun 22, 2024 at El Paso TX PoE.
[("John Doe", "", "2024-06-22", "El Paso, TX", "31.77", "-106.46", "10gms", "Meth", "", "Trousers")]
Type your question...
Building Knowledge Graph Services with Ease
challenge: langchain programming skills are challenging
demo: deliver visual composing capability



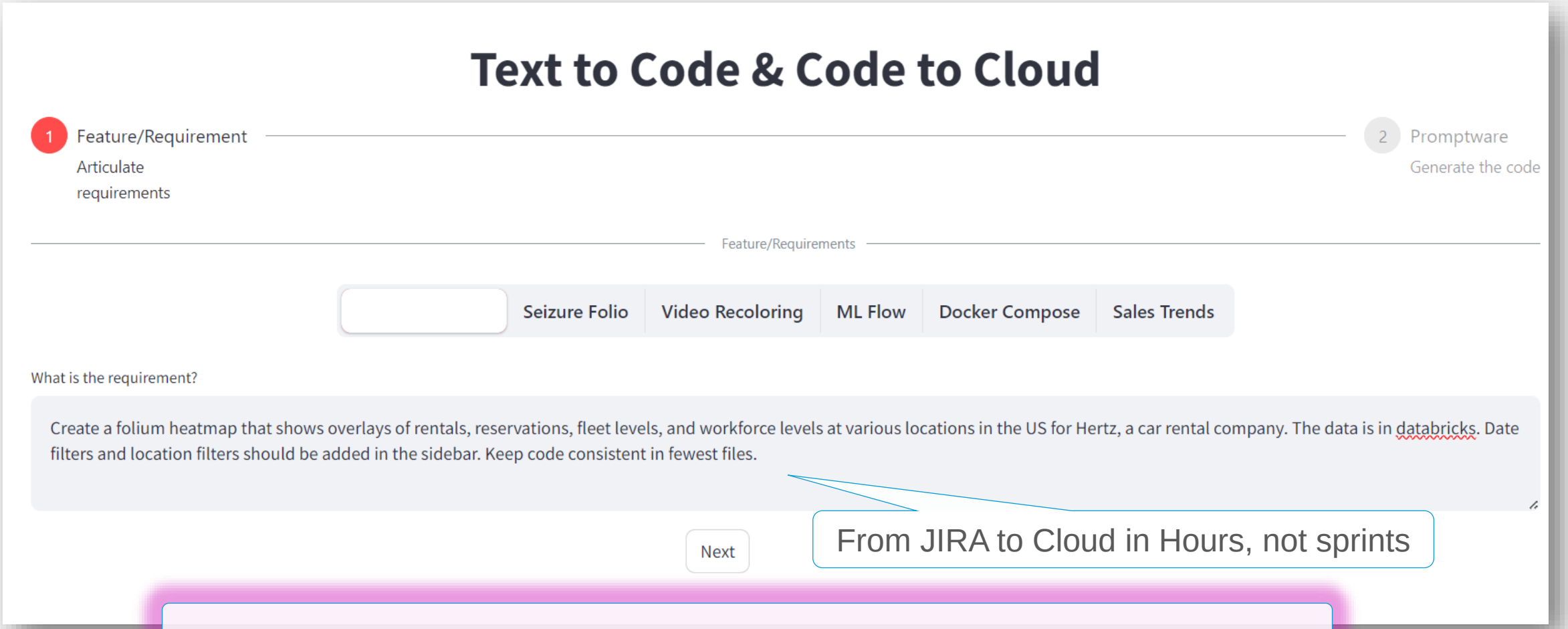
1) Point-n-click AI Apps & Services

2) Driving customer outcomes...

Build & Operate in Minutes

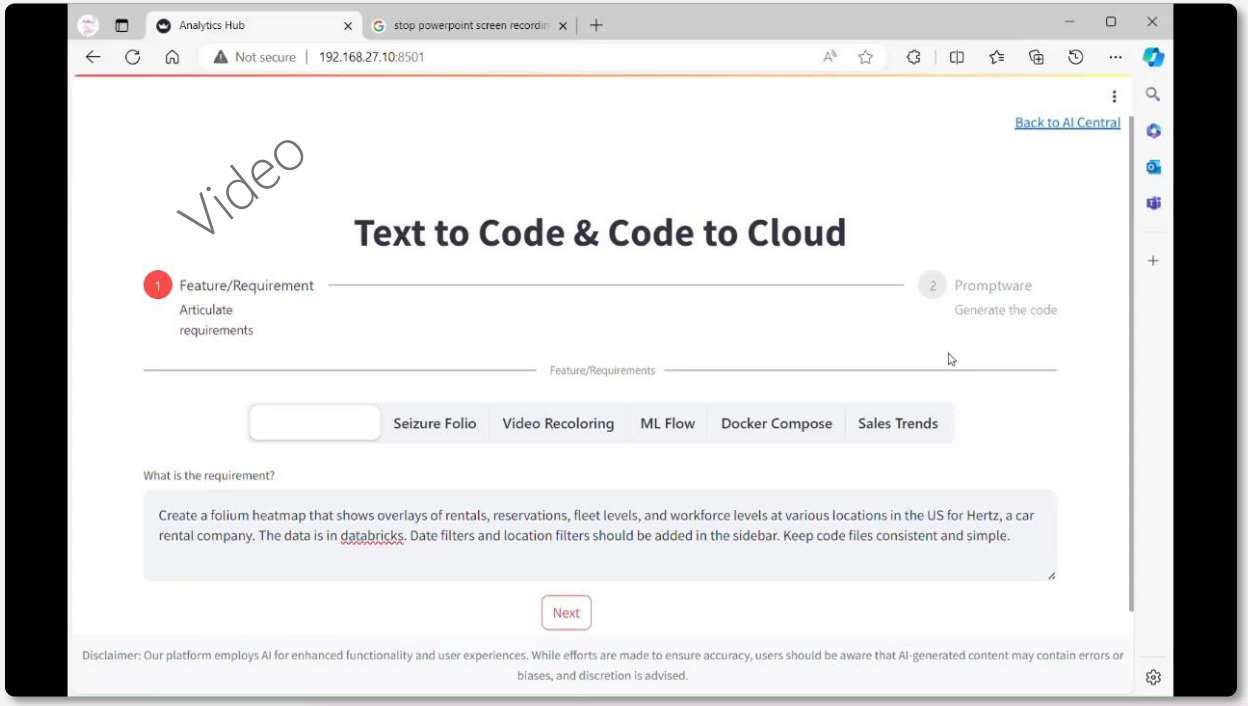
challenge: managing gen ai apis/swarms is challenging

demo: build and scale gen ai apis, apps, and services easily from same canvas

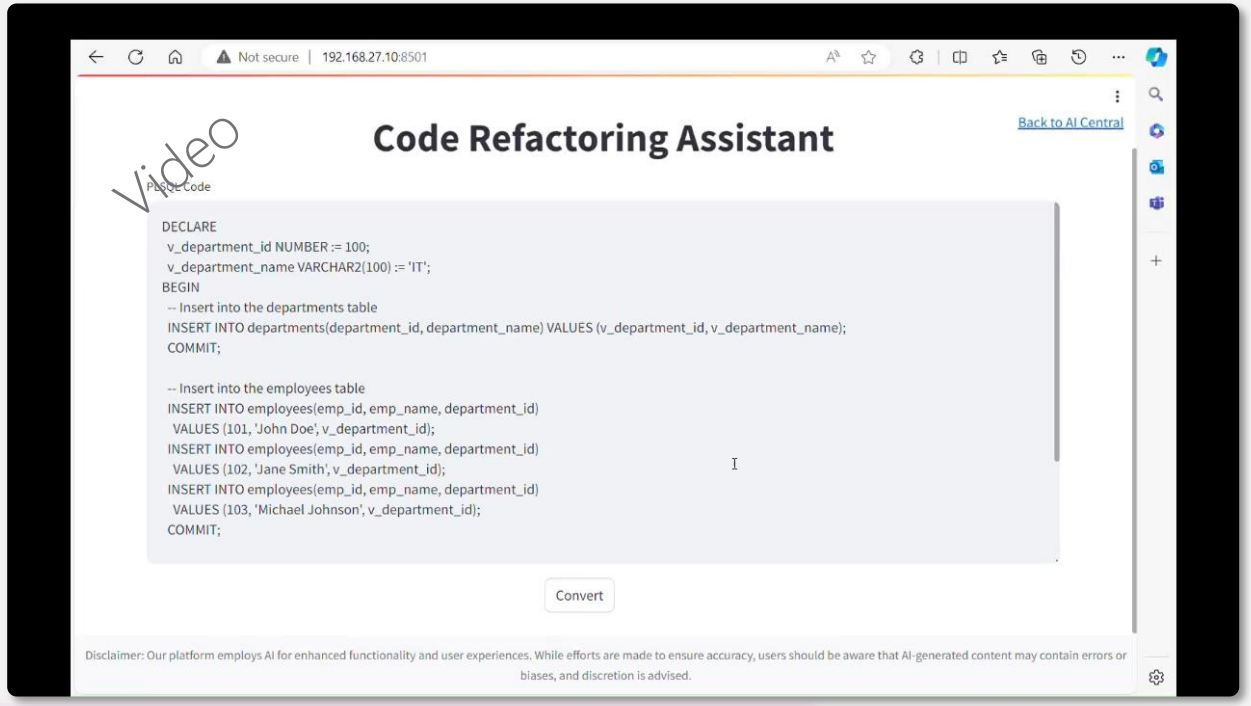


challenge: **requirements → code → cloud is slow**

For advanced coding & devops



Mundane lift-n-shift to the cloud



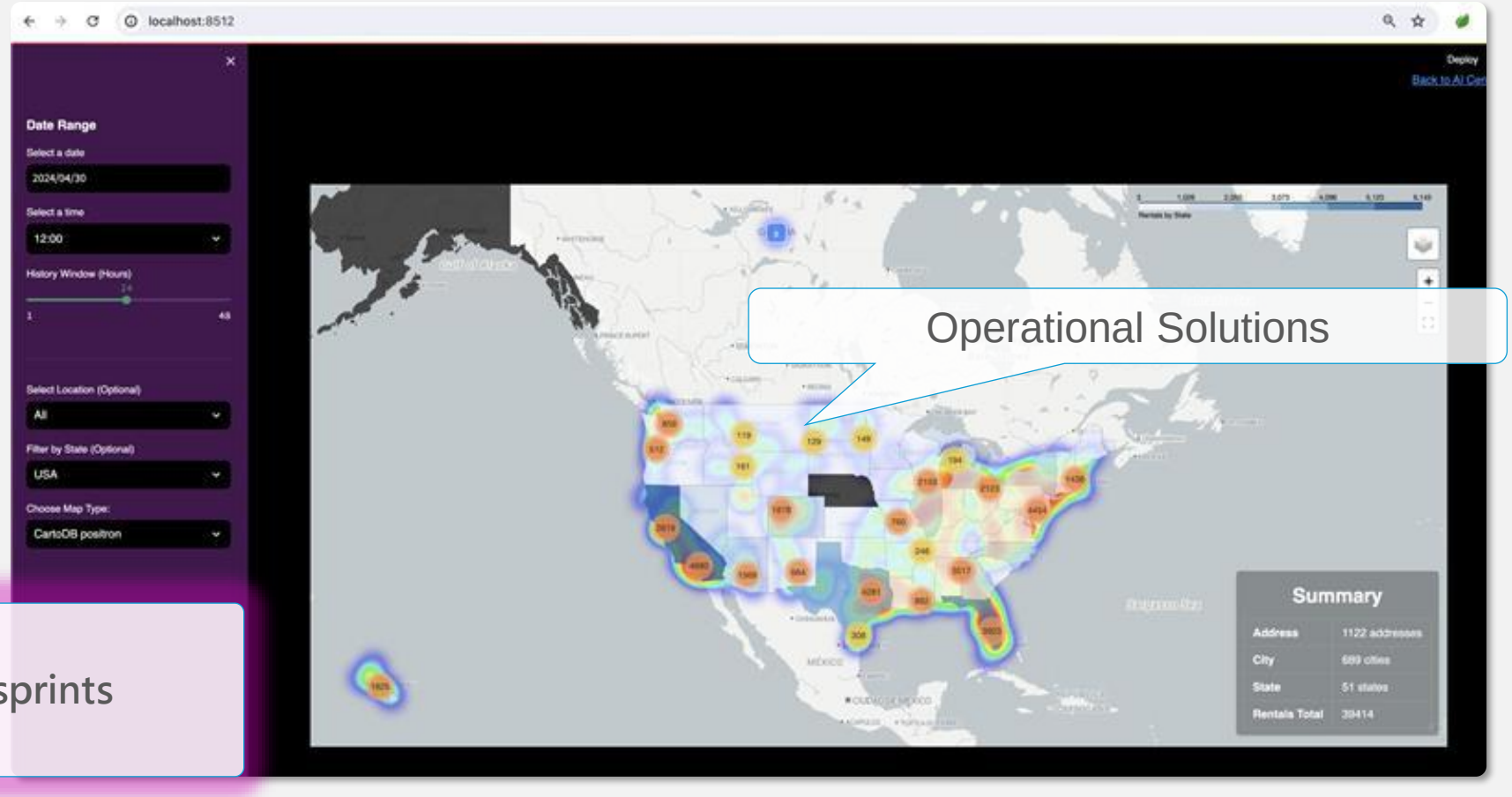
demo: ai developed promptware bootstraps archetypes quickly

Swift Promptware Releases in Hours

Create a folium heatmap that shows overlays of rentals, reservations, fleet levels, and workforce levels at various locations in the US for Hertz, a car rental company. The data is in databricks. Date filters and location filters should be added in the sidebar. Keep code consistent in fewest files.

10AM

3PM



Operational Solutions

demo: results in hours... not sprints