

New Updates for Phase 2: Streamlit

Visualizations (Streamlit): To test our dashboard and visualizations, we created a Streamlit dashboard and deployed it locally.

Select reports for Arxiv, Reddit, or Gnews from a dropdown menu.

The screenshot shows a Streamlit application interface. On the left, a sidebar titled "Dataset: pulseai_main_db" displays "Table Selection" with a dropdown menu, "View Options" (rows per page slider at 50), and "Quick Info" showing 1,505 total rows and 2.09 MB size. The main area is titled "Browse: arxiv_papers" and shows a table with columns: paper_id, title, abstract, category_sk, published_at, updated_at, and _loaded_at. The table contains 8 rows of arXiv paper data, with the first few rows partially visible.

	paper_id	title	abstract
0	2511.05311v1	Cleaning Maintenance Logs with LLM Agents for Improved Predictive Maintenance	Economic constraints, limited availability of datasets for reproducib
1	2511.05375v1	Reasoning Is All You Need for Urban Planning AI	AI has proven highly successful at urban planning analysis -- learning
2	2511.05182v1	Autonomous generation of different courses of action in mechanized combat operati	In this paper, we propose a methodology designed to support decis
3	2511.05239v1	Translation via Annotation: A Computational Study of Translating Classical Chinese in Japanese	Ancient people translated classical Chinese into Japanese by annota
4	2511.05324v1	Evaluating Subword Tokenization Techniques for Bengali: A Benchmark Study with Bengali	Tokenization is an important first step in Natural Language Processin
5	2511.05407v1	Minority-Aware Satisfaction Estimation in Dialogue Systems via Preference-Adaptive	User satisfaction in dialogue systems is inherently subjective. When
6	2511.05162v1	Mind the Gap... or Not? How Translation Errors and Evaluation Details Skew Multiling	Most current large language models (LLMs) support a wide variety of lan
7	2511.05320v1	What Are the Facts? Automated Extraction of Court-Established Facts from Criminal-C	Criminal justice administrative data contain only a limited amount of

Select and view the table Schema

The screenshot shows the "Schema" tab of the Streamlit application. It displays the schema for the "pulseai-team3-ba882-fall25.pulseai_main_db.arxiv_papers" table. The schema table has columns: name, type, mode, and description. The table contains 7 rows of column metadata.

	name	type	mode	description
0	paper_id	STRING	NULLABLE	arXiv paper ID
1	title	STRING	NULLABLE	Paper title
2	abstract	STRING	NULLABLE	Paper abstract
3	category_sk	INTEGER	NULLABLE	Foreign key to arxiv_categories dimension
4	published_at	TIMESTAMP	NULLABLE	Paper publication timestamp
5	updated_at	TIMESTAMP	NULLABLE	Paper update timestamp
6	_loaded_at	TIMESTAMP	NULLABLE	When fact record was loaded

We have also incorporated search functionality into the dashboard, enabling keyword searches by title or abstract (e.g., it will match the input "AI" to "AI" in the title).

The screenshot shows the search interface on the PulseAI Pipeline. On the left, there's a sidebar with 'Dataset: pulseai_main_db' and sections for 'Table Selection', 'View Options' (rows per page set to 50), and 'Quick Info' (total rows 1,505, size 2.09 MB). The main area has a search bar with 'Artificial Intelligence' and a search button. Below it, a 'Search Results' section displays 24 items found, each with a paper ID, title, and abstract snippet.

paper_id	title	abstract
0	2511.03354v1	Generative Artificial Intelligence in Bioinformatics: A Systematic Review of Models, Applications, and Implications
1	2510.23578v1	Reduced AI Acceptance After the Generative AI Boom: Evidence From a Two-Wave Survey
2	2510.23524v1	Toward Carbon-Neutral Human AI: Rethinking Data, Computation, and Learning Parameters
3	2510.23415v1	Towards Generalisable Foundation Models for 3D Brain MRI
4	2510.15769v1	Preliminary Quantitative Study on Explainability and Trust in AI Systems
5	2510.15772v1	Self-evolving expertise in complex non-verifiable subject domains: dialogue as implicit learning
6	2510.21623v1	The Universal Landscape of Human Reasoning
7	2510.21469v1	Enhancing Social Robots through Resilient AI

Visualizations for exploratory data analysis (EDA). Users can select data sources from the dropdown and view time-series data to identify trends and patterns.

