What is AI-Minesweeper?

AI-Minesweeper is a hypothesis discovery framework inspired by the classic game Minesweeper. It uses epistemic reasoning to uncover hidden patterns, contradictions, and gaps in structured datasets. The framework is designed to be domain-agnostic, allowing researchers to plug in custom datasets and adjacency logic.

Plug-in Design

The framework supports modular plug-ins for domain-specific logic. Each plug-in defines adjacency rules, clue generation, and hypothesis evaluation tailored to the dataset.

Demo List

- **TORUS Demo**: Explore topological patterns.
- **Cymatics Demo**: Analyze wave interference data.
- **Prime-Spiral Demo**: Investigate prime number distributions.
- **Periodic Table Demo**: Discover gaps and anomalies in the periodic table.

TORUS Integration

TORUS is a complementary tool for topological data analysis. AI-Minesweeper integrates with TORUS to enhance hypothesis discovery in spatial datasets.

Case Study 2 – Hunting Super-Heavy Elements

The periodic-table domain adapter demonstrates hypothesis discovery in nuclear physics. Weighted clues guide the search for unbound isotopes, treating unstable nuclei as mines. This approach highlights gaps in nuclear stability metrics, enabling predictions for super-heavy elements like Z 119–126.