Portfolio Chat

Explainable. Modular. High Performing.

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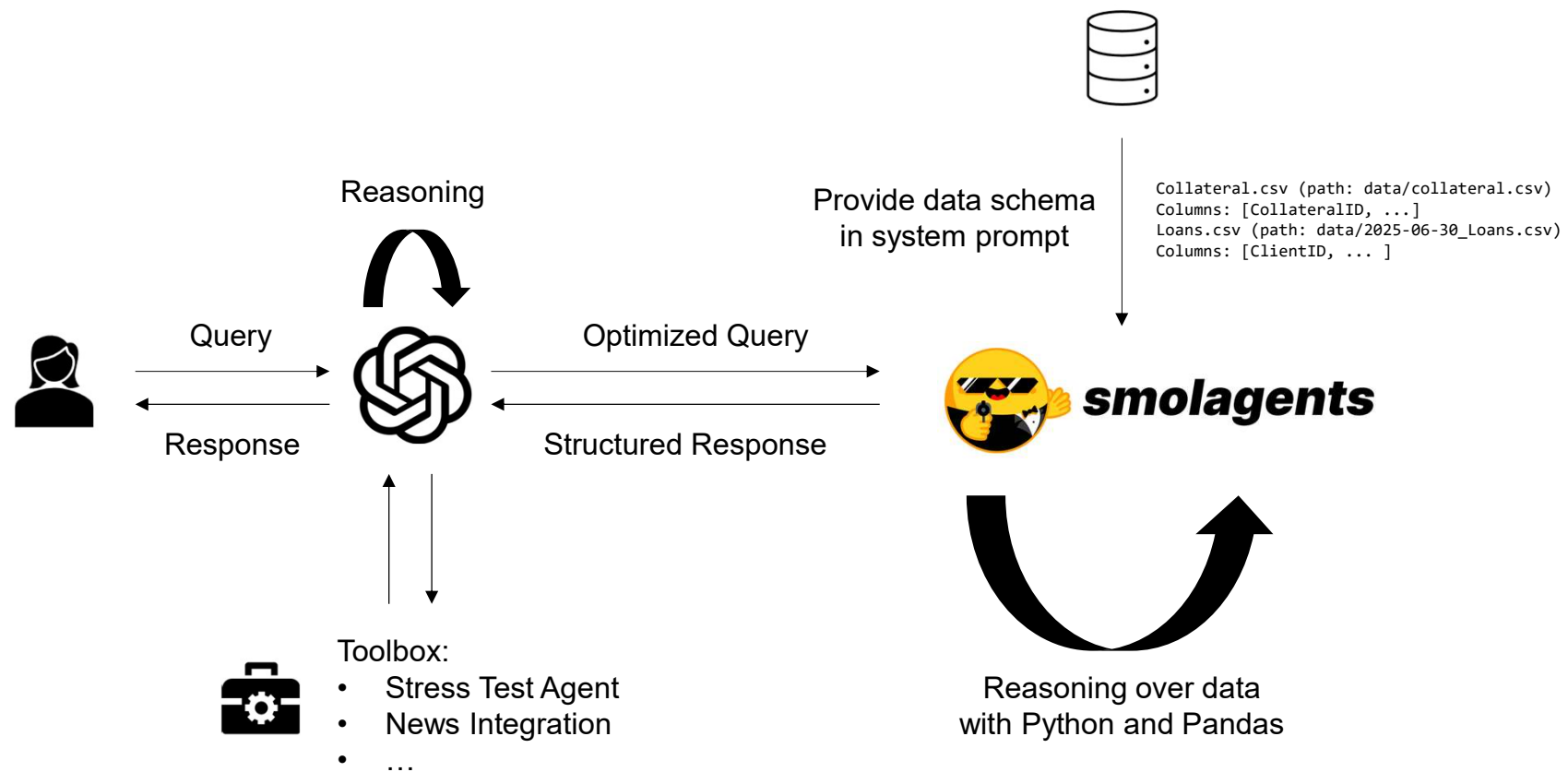
Demo

Connecting to your portfolio...

Portfolio Chat: From Query to Verified Answer

Reasoning

Query → Optimized Query

Response → Structured Response

Provide data schema
in system prompt

```
Collateral.csv (path: data/collateral.csv)
Columns: [CollateralID, ...]
Loans.csv (path: data/2025-06-30_Loans.csv)
Columns: [ClientID, ... ]
```

smolagents

Reasoning over data
with Python and Pandas

Toolbox:
- Stress Test Agent
- News Integration
- …

Portfolio Chat: From Query to Verified Answer

Handles complex, multi-step operations	Joins and filters data from multiple sources, combining information to produce accurate results
Understands and adapts to varied contexts	Normalizes spelling, phrasing, and data variations without explicit instructions, e.g., *Zurich/Zürich* or *apartment/appartments/apt*
Refines outputs through intelligent review	Checks and filters tool results to resolve ambiguities and edge cases, e.g., separating *Zürich* from *Egg b. Zürich*
Easily extendable with modular tools	Supports simple addition of new tools and external data connectors
Transparent execution and reasoning traces	Data analysis processes traceable through executed Python code, allowing full visibility into each step

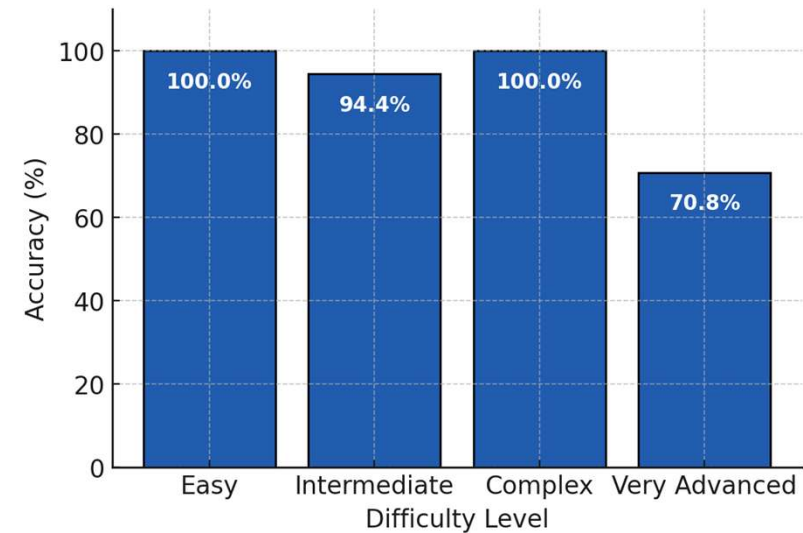# Portfolio agent shows strong, consistent results on benchmark

Self-Consistent and Robust

Delivers consistent output across
prompt variants and rephrasing

Versatile and Powerful

Handles variety of complex queries with ease
with consistent results across repeated runs

ETH zürich

Portfolio Chat

Building a better Portfolio Agent: Future work

Visualization agent
Dynamically generate interactive dashboards to explore exposures, risk distributions, and trends

Dynamic Data Management
Support for multiple portfolio datasets with user-uploaded files and develop a tool that dynamically reads the data schema

Confidence Scoring
Quantify answer reliability via self-consistency, logit probabilities or utilizing LLM-as-a-Judge