

Open-Source Infrastructure for Human–AI Collaboration in Real-World Evidence Generation

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Generative AI & Analytics in Healthcare (GAIA)



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HADES



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ATLAS/ WebAPI



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Phenotype Development and Evaluation

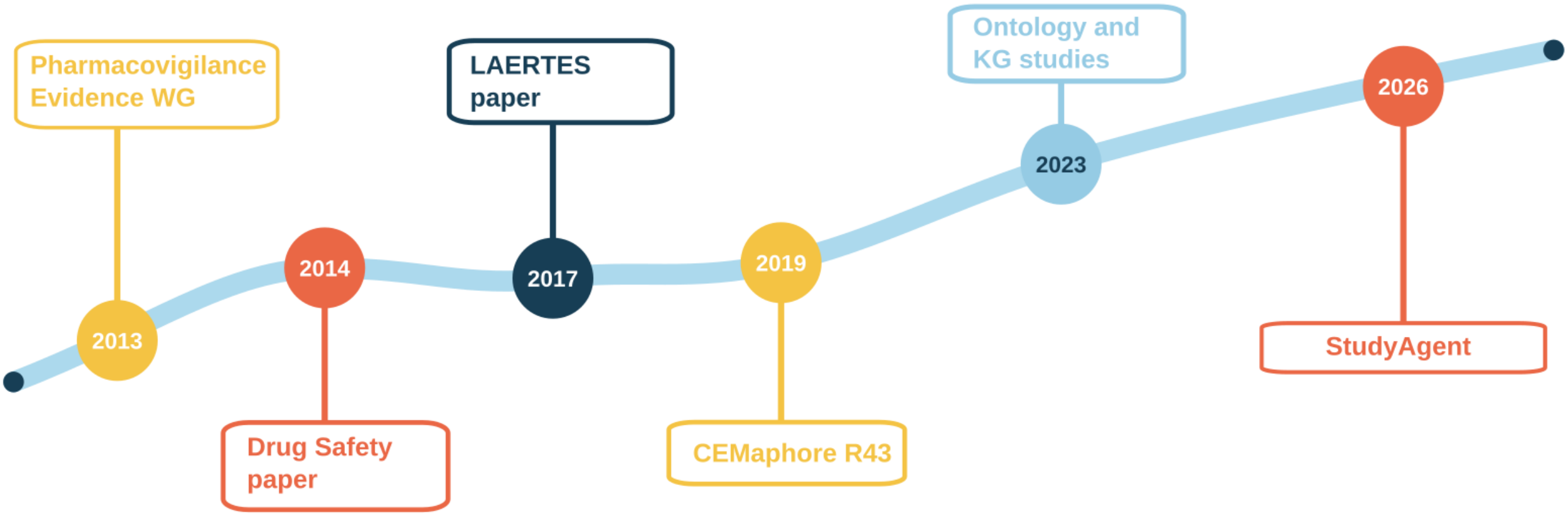


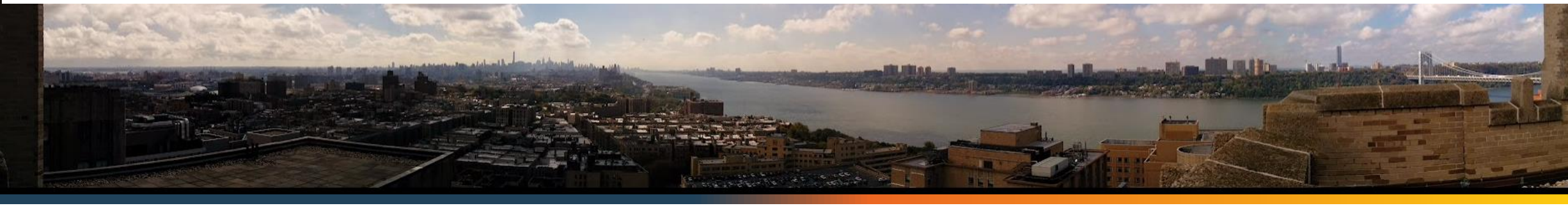
Gowtham Rao



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Brief summary of my OHDSI journey





Use cases in need of human-AI teaming design patterns



- Judgment-heavy points in real-world evidence (RWE) research:
  - retrieval, synthesis, critique, guardrails, workflow-aware question answering

- Human-centered objectives:
  - human involvement and "up-skilling"
  - human awareness of key decisions under uncertainty
  - human accountability for RWE results

Pairing human-AI design patterns with OHDSI's existing deterministic code



AI

- clarification
- objective
- cohort statements

Index existing phenotypes

- dense/sparse

AI

- retrieval
- improvement
- creation
- evaluation

HADES tools

- Source and cohort diagnostics

AI

- suggest implications
- identify "needles"

HADES tools

- population estimation
- cohort diagnostics

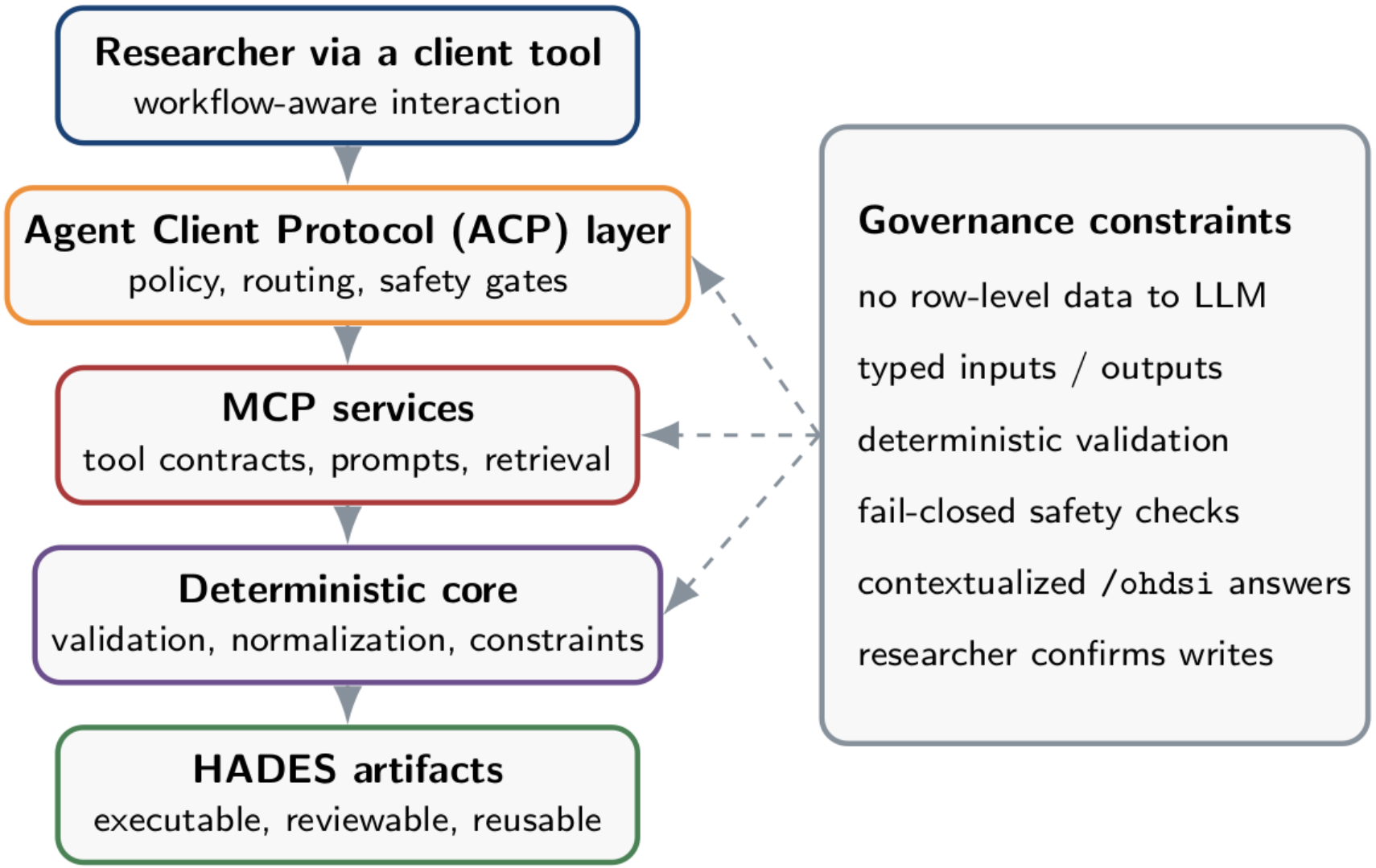
AI

- specification
- control selection

AI

- Findable
- Accessible
- Interoperable
- Reusable

Study Agent implements these ideas



https://github.com/OHDSI/StudyAgent

Brief video demo

A video demonstrating StudyAgent integration with ATLAS and R HADES is available here.

Hypothesis that we can soon test

AI support designed with human-AI teaming design patterns and a priority for validated deterministic code compared with:

No AI assistance

- ↓ time to an executable RWE protocol meeting validity and reproducibility criteria

Off-the-shelf or highly-automated AI assistance

- ↑ researchers' ability to identify and explain key decisions and trade-offs