

# Agenda

Evaluation and Benchmark

Parametric Knowledge Adaptation

Semi-Parametric Knowledge Adaptation

Summary, Discussion, QAs ~30min

salesforce

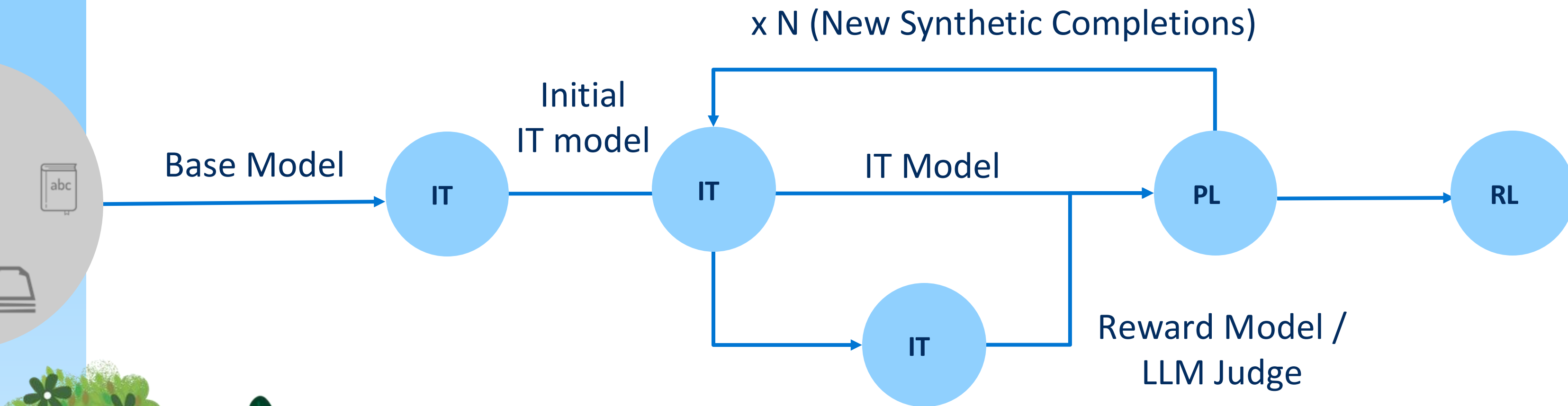
# Putting All Together

## Workflow



**Adaptation training workflow is an actively research topic, we could expect seeing more to come**

It is not surprised that the workflows introduced today are replaced soon.



# Putting All Together

## Algorithms



**While CPT and IT are used as the foundation of the model before RL, RL algorithms are actively researched today**

Key problems:

How to train a good reward model? (evaluation is challenging)

The importance of human preference data vs. LLM-as-a-judge

RL for multi-agent system?

Besides learning from experience, can the LLM self-discover its own knowledge during RL?

# Putting All Together

## Data



**Data is important, including both the seed data and the data recipe. Although this is usually not disclosed, it is an active area of research in the community**

We have seen more and more publicly available data

More data synthetic or distillation (e.g., direct distillation in DeepSeek-R1) is coming

# Adaptation – Open Questions



## Workflow

**Training workflow:** What is the best training workflow for adaptation?

**Agentic workflow** (e.g., RAG agentic system), can we automatically design workflow? a meta-level design is still understudied

## Algorithm

RL has very high potential but research still needed (e.g. reward modeling, RL for multi-agent system)

## Data

Better data synthetic and data distillation method



A brown teddy bear is the central figure, wearing a black hoodie with a silver zipper. It is holding a large white rectangular sign in front of its chest. The sign has the text 'Q&A' written in a dark blue, sans-serif font. The bear is positioned in front of a large blue circle. The background is a light blue gradient with stylized green bushes and yellow flowers in the bottom right corner.

Q&A