Hierarchical Training

Use RL to train recursive multi-agent systems

- In our experiments, we use 0-shot prompting for task decomposition and delegation

- Powerful models like GPT-4o have an impressive capability to do this 0-shot, but weaker open-source models still struggle

- Can we use a hierarchical RL policy (e.g., ArCHer (Zhou et al., 2024)) to propagate a conversation-level reward down into a tree-based agent graph?

- Can we use this to train smaller open-source models to work collaboratively in a multi-agent setting more effectively?

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Shared Tokens for Multi-Agent Systems

More forms of communication between agents