

## Research project and supervisor team

<b>Supervisory Team</b>	<a href="#">Dr. Yuan Yao</a>
<b>Short introduction &amp; description of research project</b>	<p>Multi-Agent Systems (MAS) is one of the popular research topics in the field of Artificial Intelligence, which spans research directions including agent architecture, agent theory, agent reasoning, agent communication and so on. Among all these research directions, reasoning about the interactions between agents has been one of the key research problems, as it will hugely affect the behaviour of the agents and thus affect the overall efficiency of the system. Existing works on reasoning about the interactions between agents have mostly focused on homogeneous agents which are not suitable for solving large-scale real-world problems. When the agents become heterogeneous, e.g., agents are programmed using different architectures and by different developers, the behaviours of other agents are more difficult to predict. Thus, the problem of reasoning about interactions between agents becomes more challenging. In this project, we focus on solving the multi-agent interaction problem when the agents are heterogeneous. We aim to provide a general framework for agents to reason about potential interactions with other heterogeneous agents in a multi-agent system. The proposed research project will help to address some key research problems in MAS, such as goal recognition and intention scheduling, and thus provide a solid foundation for engineering multi-agent systems in the real-world.</p>
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