



A Jev-like Decision Model for Fast Collaboration Grounded in Behavior Trees

Bachelor/Master – Fast collaboration requires making quick, good-enough decisions about what to do and who does it, without waiting for slow deliberation. This thesis designs and evaluates a lightweight, “Jev-like” decision model that makes such collaboration decisions directly from an actionable task representation, a behavior tree: deciding which task to pursue and who should perform it (agent, partner, or both) as a fast, grounded function of the tree and the current state. The goal is a decision rule that is fast, interpretable, and easy to extend.



Tasks

- Formalize a “Jev-like” decision model that maps a behavior tree and the current state to a fast collaboration decision.
- Implement it and integrate it into the kitchen agent as its fast decision layer.
- Evaluate decision quality and speed against a slower (for example, LLM-based) baseline.

Your Profil

- Basic programming experience and interest in decision-making or optimization.
- Familiarity with search, heuristics, or planning is a plus.
- Interest in multi-agent collaboration.

Interested?

If you are interested or have further questions, please send an email to fschroeder@techfak.uni-bielefeld.de.