

Master thesis

## Master's Thesis: Capturing Implicit Process Knowledge Using AI

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The KIProWahl research project focuses on AI-based process analysis for the selection of business software in SMEs. The aim is to reduce the time required for process elicitation using an LLM-based chatbot. However, a large part of process knowledge in production environments consists of tacit experience. In this thesis, you will develop and evaluate LLM-based interview strategies (e.g., storytelling, problem-centered approaches) to systematically and role-specifically externalize this hidden knowledge from shopfloor employees.

### Your tasks

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- Identification and analysis of existing interview methods for knowledge extraction
- Development of specific LLM prompt strategies, e.g., by integrating linguistic approaches to interpret sentence semantics
- Conception of role- and use-case-specific question generation for the chatbot
- Implementation and testing of the strategies in the Python-based software demonstrator
- Evaluation of the methods regarding the quantity and quality of the captured tacit knowledge

### Your profile

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You are studying one of the following subjects:

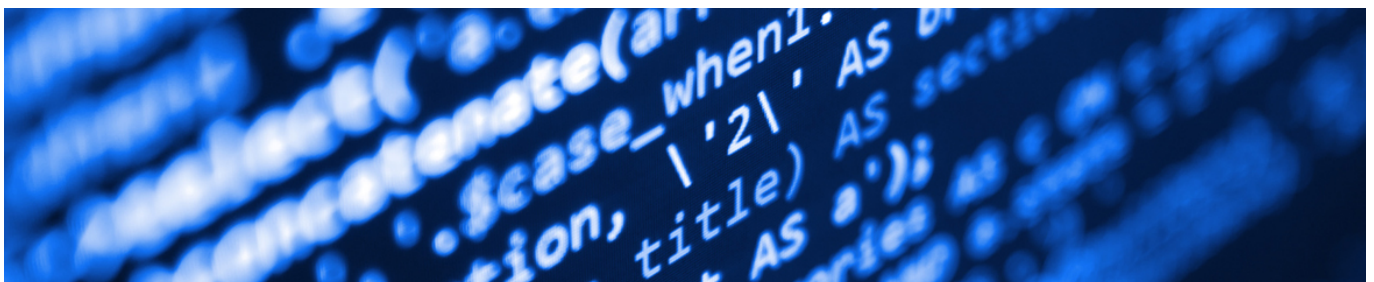
- Computer Science, Business Informatics
- Mechanical Engineering, Industrial Engineering
- or comparable

You are interested in Artificial Intelligence, Process Management, and Human-Machine Interaction. Additionally, you have initial experience in Prompt Engineering and basic knowledge in software development (ideally Python). Good written and spoken German and English skills are required.

### We offer

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- independent work
- flexible working hours
- well-equipped workplaces
- home office by arrangement
- execution of experiments



## Contact

Bitte sende deine aussagekräftige Bewerbung in einer einzigen PDF-Datei an [jobs@iph-hannover.de](mailto:jobs@iph-hannover.de).

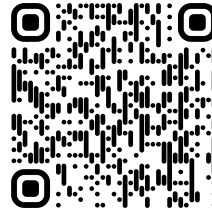
Still not convinced?

Die Bewerbung muss Anschreiben, Lebenslauf sowie Prüfungsleistungen des Studiums / Zeugnisse enthalten.



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