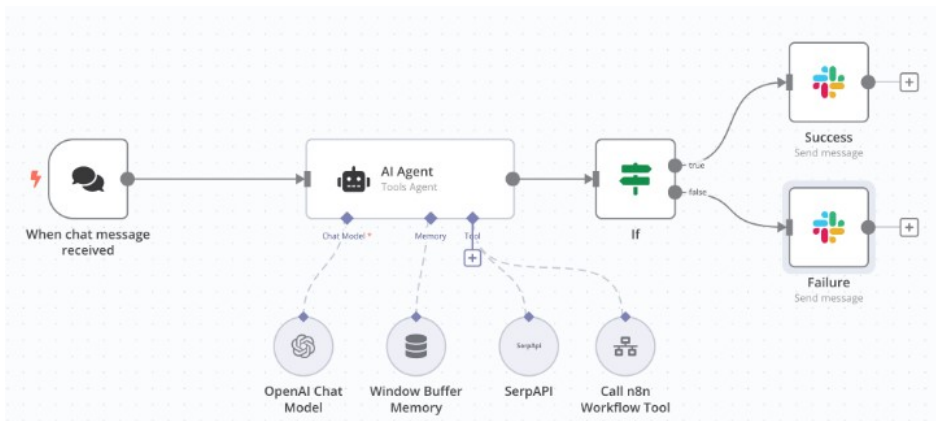


# Graphical User Interface for LLM Agentic Workflow Visualization

## Description

Large Language Models (LLMs) have transformed how we interact with technology, allowing users to communicate with systems using natural language. An LLM agentic workflow involves multiple autonomous steps, where intermediate processes contribute to the final outcome. However, visualizing and monitoring such workflows remain a challenge.

This thesis aims to develop a web-based graphical user interface (GUI) for visualizing LLM agentic workflows, illustrating the current processing status, providing zoomable insights into intermediate steps, and ensuring that outputs of individual steps can be easily retrieved, visualized and understood. The output of individual steps can be code, class diagram, etc. The GUI should be integrated with n8n [1] to leverage its capabilities



For application please send me an email with title “Bachelor Thesis Application: GUI for agentic workflow”. Please also attach your resume and transcript of records in the email. An motivation letter is NOT required.

## Tasks

- Design a workflow visualization tool for LLM agentic processes.
- Enable real-time status updates for each workflow step.
- Implement a zoom-in functionality for detailed inspection of intermediate steps.
- Provide an intuitive way to retrieve and interpret step outputs.

## References

[1] n8n.io. n8n - workflow automation tool, 2025. Accessed: March 10, 2025.



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### Supervisor:

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### Advisor:

Fengjunjie PAN, M.Sc.

### Research project:

MANNHEIM-CeCaS

### Type:

BA

### Research area:

Generative AI, Web design,  
UI/UX

### Programming language:

JavaScript, Python

### Required skills:

Ubuntu, Frontend development,  
RestAPI

### Language:

English

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