Implementing a Voice only Chatbot with Large Language Models

Student

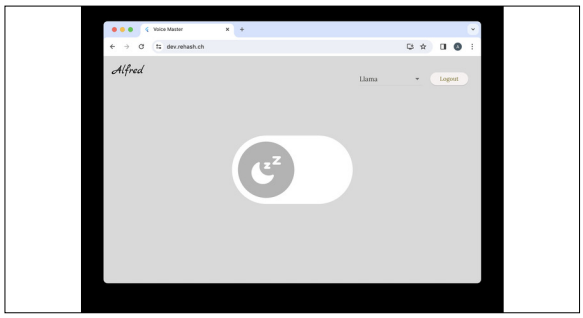
Abinas Kuganathan

Introduction: This project was about the development and implementation of a voice-first chatbot prototype. This project was carried out in collaboration with students from the Human-Computer Interaction Design (HCID) Master's program Dennis Eitner and Sandro Pezzutto, with a focus on assessing the feasibility and effectiveness of a voice-based chatbot tailored for seniors. The outcome of this project is a web application that enables users to interact with a chatbot capable of not only engaging in conversation but also recognising and transitioning to various activities.

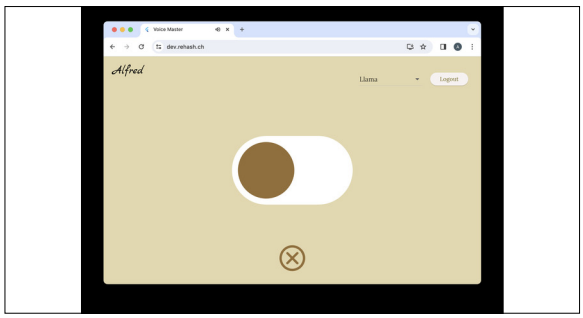
Definition of Task: The core deliverable of this project is a web application that allows users to interact with a chatbot through voice commands. This chatbot is designed not only to engage in meaningful conversations but also to recognize and transition between different user activities seamlessly.

Conclusion: This project demonstrated the relative ease of implementing a voice-based assistant using large language models, including tools that augment the capabilities beyond just using the large language models alone. The application allows for the straightforward addition of new tools, simply by providing another tool implementation. This flexibility makes the system extensible and adaptable for various applications. The project highlighted the impressive potential of large language models and how their knowledge base can be expanded through prompt modification.

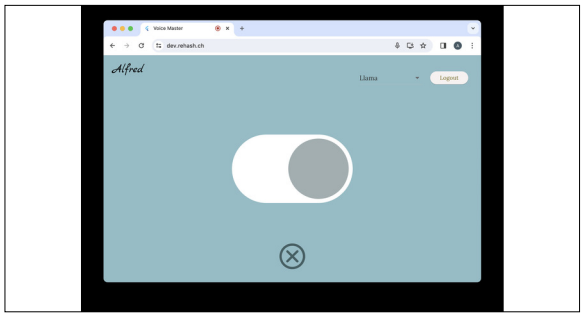
sleeping state
Own presentment



talking state
Own presentment



listening state
Own presentment



Advisor
Prof. Dr. Markus Stolze

Subject Area
Computer Science