

Creating A Virtual Receptionist to Lighten Your Employees' Workload: A Case Study with the Canton of Jura and Subsidies for Training.

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Abstract

The process for getting a subsidy for a formation is lengthy and complex, and people can often get confused by the application's wording or the questions asked. People can also get frustrated when their application for a subsidy is denied for simple reasons that they did not know beforehand. The "Guichet virtuel" (Virtual counter) of the canton of Jura provides a simple form which allow people to see if they are eligible or not for a funding, before filling the whole application.

Nonetheless, a lot of people skip this form and either calls the subsidies department by phone or fill the whole application. This situation wastes a lot of time for the subsidies department staff and creates a lot of frustrations for the applicants.

To resolve this process, we propose a prototype of a virtual receptionist in the form of an LLM-driven chatbot, acting as a first contact before calling the staff or filling the whole application. This chatbot can discuss with a user and understand his or her profile, asking question until the eligibility is verified. This allows users to quickly get an answer just by chatting and avoiding the need to call the subsidies department staff for the simpler questions.

Using a Mistral-based model, we created an architecture where the receptionist is able to discuss with an applicant and extract relevant information from their answer. Then, the model evaluates the maximum information gain for each potential missing information and asks the best question to get a final answer as quickly as possible. Contrary to most approaches, the proposed pipeline benefits from a strong validation process also meant to avoid direct contact between the applicant and the LLM.

This talk will present the problem, how we resolve it with the creation of the chatbot including some technical details, and the implications if the audience wants to create something similar for their company.