

"tsuzumi" that understands user situations

IOWN Pick Up

NTT version Large Language Models



Background

One of the unique features of LLM is task solving through autonomous planning. However, current task solving, while not restricting the target domain, is limited to simple tasks and is still difficult to perform advanced planning that satisfies user requirements and constraints simultaneously.

Summary

LLM plans the driving schedule to the destination, taking into account the user preferences, physical condition, time and geographical constraints, and other factors as appropriate. The schedule is autonomously modified based on information on tourist spots along the driving route and user feedback.

Situation memo

User Background

Date: 11/5, 11:00am

Location: Urawa

Destination: Hakone XX Hotel

Passengers: Daughter (3rd grade), Spouse

Wish: Sightsee in Kamakura or somewhere en route.

Schedule Proposal (by LLM)

11:00 Leave Urawa

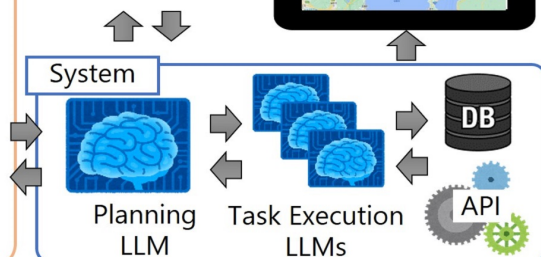
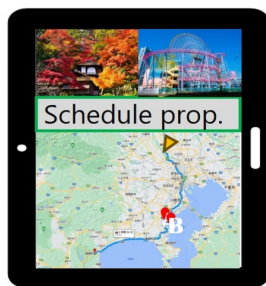
13:00 Arrive Kamakura

13:30 Lunch

15:00 Komachi Street tour

16:00 Leave Kamakura

17:00 Arrive Hakone



System

User (driver)

I checked the route to Kamakura, it takes about 2 hours. Lunch might be a bit late. Should we have lunch before Kamakura?

That could work. Any places in mind?

We could reach Minatomirai just after 12pm. Chinatown is also nearby.

Oh, that's an option.

Cosmo World might be fun for your daughter, and it seems the leaves at Sankeien are starting to change colors.

Sounds good. Let's stop around there. Any recommendations in Chinatown?

Dialogue example

Features

- Flexible task solving that reflects the user's backgrounds and sequential requirements based on LLM's advanced information extraction capabilities
- Consistent scheduling through the use of external tools that assist in time calculations and understanding of rough geographic and temporal location relationships
- Highly accurate and fast inference with small LLMs through domain-specific learning, hierarchical execution of tasks, and compression of information returned by external tools

Future_benefits

In the future, AI will seamlessly support our daily lives, intuitively understanding users and their surroundings, enabling flexible task resolution through rich interactions.

Collaboration partners

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