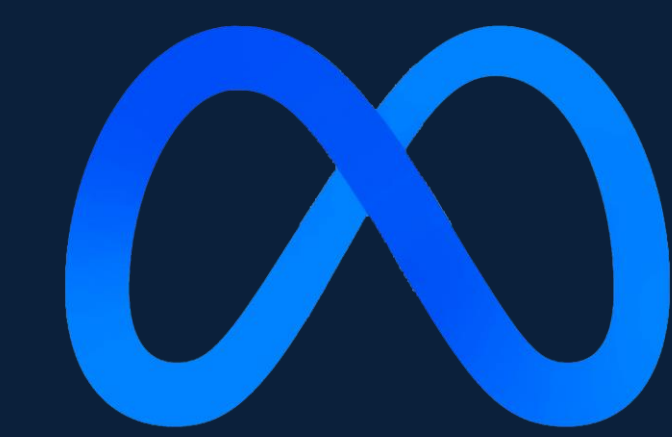


Langscape 3.0

Students: Sahil Sethi, Muhammad Taha, Carlos Lopez, Jordan Fernandez, Alexis Loriga
Mentor: *Steven Luis (Product Owner)*
Instructor/Faculty: Dr. Masoud Sadjadi, Florida International University

TECHNOLOGIES USED



SUMMARY

Langscape 3.0 is an interactive and fascinating VR environment with an AI assistant. Users can ask the AI assistant to create structures and change the settings in the VR environment. The purpose of this project is to bridge the gap between the virtual and the physical environment through the use of a local Large Language Model (LLM). Users can effortlessly spawn objects via an interactive menu interface, while also benefiting from a diverse array of LLM-generated assets and environments, enriching their creative experience.



FUTURE WORK

- Improving the AI assistant with more fine tuning and prompting.
- Using another LLM that is faster and more accurate.
- Replace Wisper with a local LLM for speech-to-text conversion.
- Expand on asset generation with the LLM.



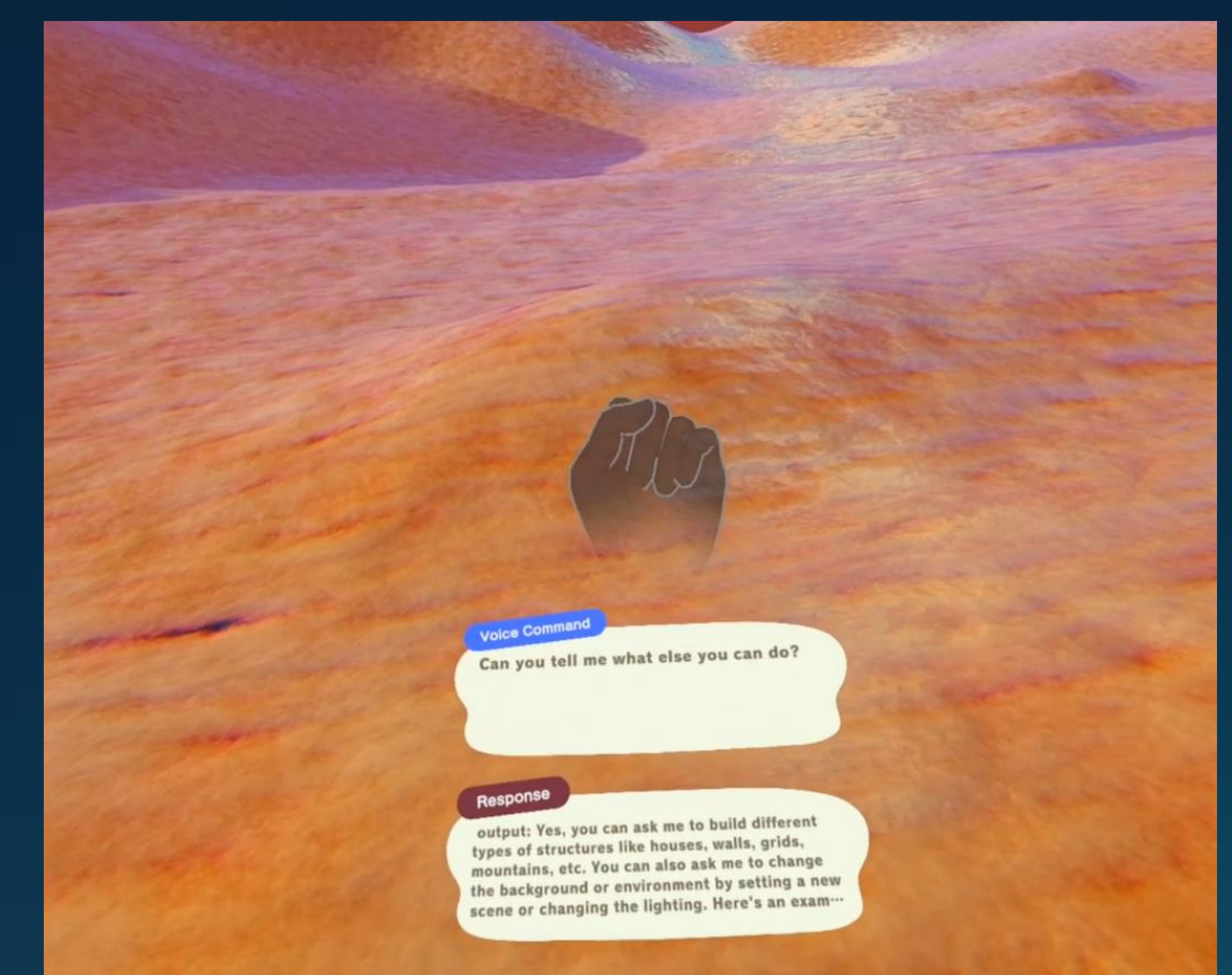
Fine Tuned AI Assistant

INDIVIDUAL CONTRIBUTIONS

- Rework of the LLM to a local solution.
- Switched from GPT 4 to Mistral 7B for creating structures and background implementation.
- Fine tuned Mistral to get better results than the previous solution.
- Improved build results from the previous implementation by prompt engineering.
- Enhanced the AI assistant's functionality to provide natural and intuitive support to users.

TEAM CONTRIBUTIONS

- Refined the user experience to facilitate asset spawning within the environment.
- Implemented a menu system for users to select and place objects seamlessly.
- Implementation of LLM generated assets and environments.
- Replaced GPT 4 with Mistral 7B for a local solution for the AI assistant.
- Enhancement of prompts through prompt engineering.



AI Assistant Helping User



ACKNOWLEDGEMENT

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