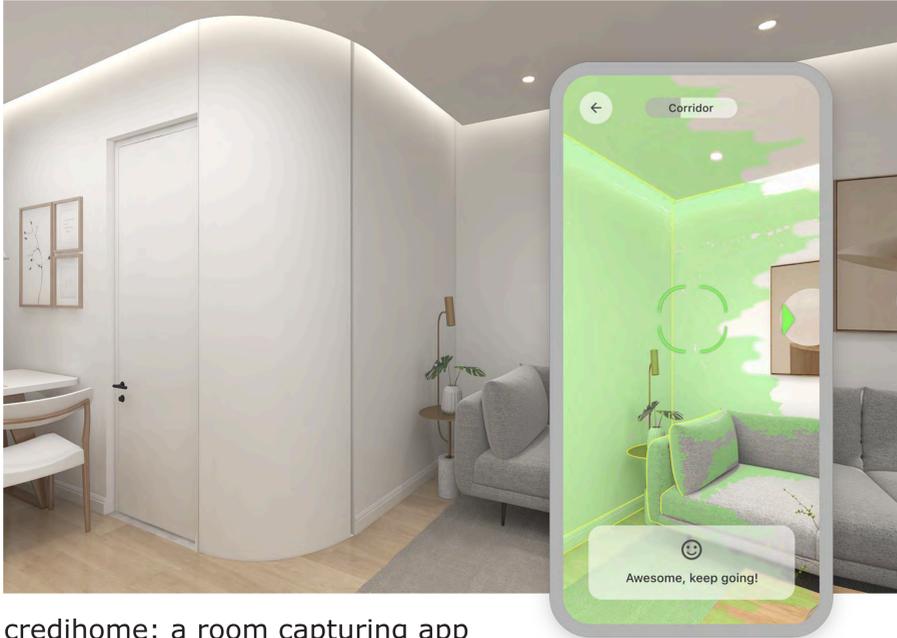


UX Design of a Room Capturing App



credihome: a room capturing app

Abstract

The digitization of building data can provide enormous value to many businesses. For example, in applying for a mortgage, a tool that helps capture property data would simplify the tedious work for both the applicant and the bank.

For this Master's thesis, I worked with a building data startup, credium GmbH, to try to find a viable room capturing solution. My goal is to help users efficiently perform the task of scanning interior spaces from a user experience perspective. I conducted surveys of potential users to understand their needs and the opportunities for this product. I used the Lean UX design process to come up with design ideas and validate my assumptions quickly.

I ended up with a conceptual prototype as a viable solution to this research problem: how to guide the user to capture the room efficiently? The user flow is divided into three main stages: access the scanning project through a code; scan rooms with AR and AI assistance; and in the end upload the scanning result to the cloud.

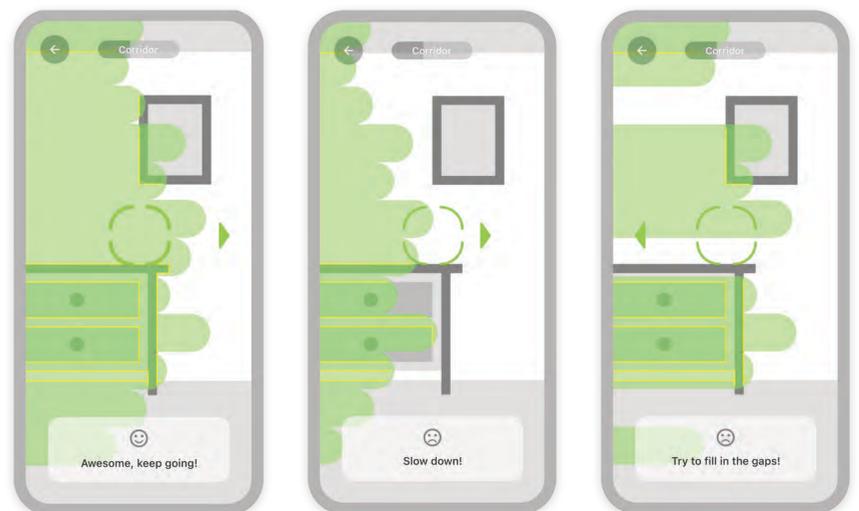
Special Focus

Feature: checklist for scanning preparation

To ensure a seamless scanning process and accurate results, the status of the devices and the room environment are particularly important. My design solution is listing all the checkpoints which ensure a successful scan before the scan starts.

Feature: adaptive viewfinder helping identify room doors

Doors are a standard element in the home and the AI can be easily trained to recognize them. Always start by scanning and identifying the door before entering each room, firstly makes the whole scanning process more organized, secondly provides a consistent interactive experience for the user and reduces learning and memory costs.



How to guide the user to control the scanning speed



Checklist before scanning and adaptive viewfinder

Result and Future Work

In recent years, the digitization of the physical world is becoming more and more fascinating with the rise of the concept of the metaverse. Digital twin technology is already seeing its first applications in various industries. Digitization of architectural data, which is discussed in this thesis, is one of these explorations.

Due to the limited time and resources, this thesis still has some aspects that need to be improved and complemented:

During the user research phase, I focused more on the end-users and did not consider much other stakeholders. As a next step, I suggest including more financial institutions like banks into the study to optimize the entire service experience. Scanning the entire interior of a building is a very complex user workflow, and it is equally challenging to guide the user through this task efficiently. The scanning of multi-story buildings, for example, has not been addressed in this thesis. Further work is needed to cover more usage scenarios.



Hochschule
Augsburg University of
Applied Sciences

Contact

hossini.zxz@gmail.com

In Cooperation with

credium GmbH

Supervisor

Prof. KP Ludwig John

