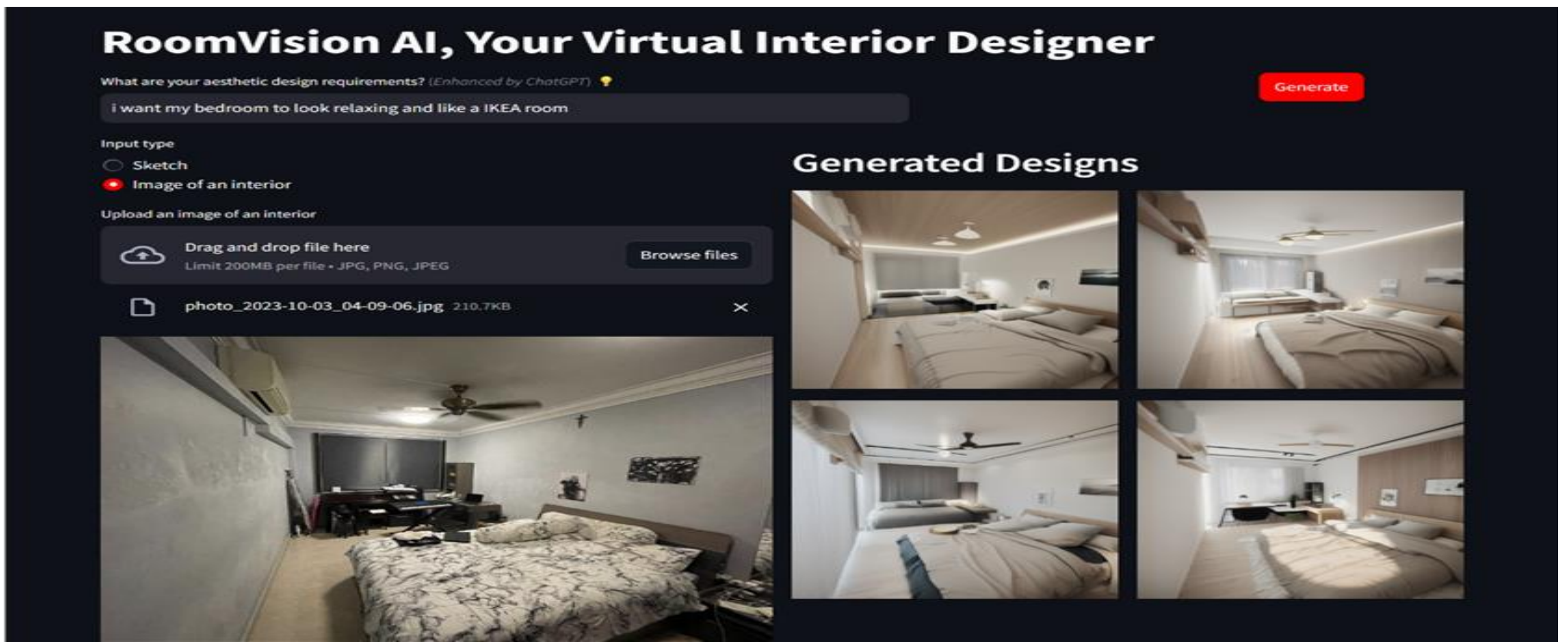


RoomVision AI

Enhancing Interior Design with Generative AI

Student: Evan Sean Sainani

Supervisor: Professor Lin Weisi



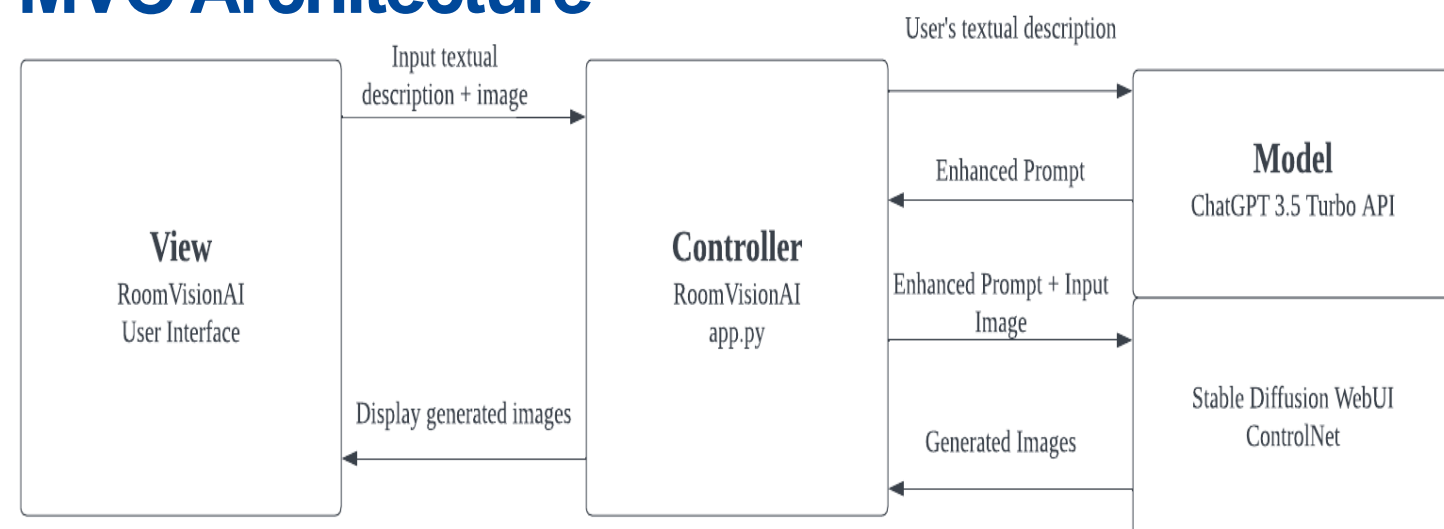
Project Objectives:

RoomVision AI seeks to revolutionize interior design by making CAD interior design tools more **user-centric** and **usable, empowering** users, regardless of their interior design knowledge. Furthermore, we explore the application of Generative AI in creating **personalized** interior design concepts. Through innovative technology, we aim to develop a **web application** to bridge the gap between users and design tools while providing insightful design suggestions. This project benefits users by offering a seamless and creative approach to interior design, creating an inclusive and collaborative experience.

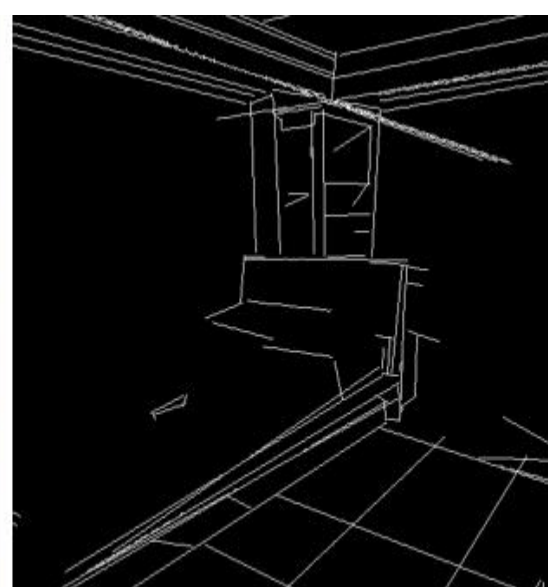
Key Features:

- Refinement of user's aesthetic textual description using GPT-3.5-Turbo
- Image to Image Generation using Stable Diffusion
- High-Fidelity of input sketch/image guided using ControlNet units

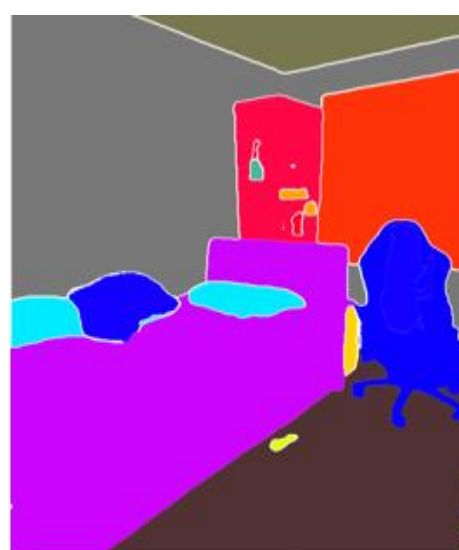
MVC Architecture



Reference Image



ControlNet MLSD Output



ControlNet Segmentation Output



Stable Diffusion Model Output