

CHRIST (Deemed to be University)  
Department of Computer Science  
MSc – Artificial Intelligence and Machine Learning

**Course:** MAI342B – Augmented Reality and Virtual Reality

**Project Title:** Augmented Reality Interior Design and Space Planning

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## **ABSTRACT**

The Augmented Reality Interior Planner project aims to revolutionize interior design and space planning by harnessing the power of augmented reality. Its primary objective is to provide users with a user-friendly and intuitive platform to visualize, plan, and optimize interior spaces in real-time. The application will offer real-time suggestions for optimizing spatial layouts and selecting appropriate furnishings to enhance functionality and aesthetics. By leveraging advanced AR technologies, the application will enable users to efficiently select and arrange furniture, decor, and other elements, ensuring effective space utilization. Users can visualize potential designs within their physical environment, enabling informed decision-making and efficient space utilization.

Extensive research indicates a growing demand for innovative solutions that simplify the interior design process and improve spatial awareness. Current challenges include difficulty visualizing furniture placement, uncertainty about style compatibility, and the high cost associated with design mistakes. The AR Interior Planner project addresses these issues by offering a dynamic AR environment where users can experiment with various design options, receive real-time feedback, and make informed decisions.

## **DESIGN SOLUTIONS**

### **Residential Design**

Homeowners can use the app to visualize and plan their living spaces, ensuring optimal furniture placement and decor selection.

### **Commercial Design**

Interior designers and architects can utilize the app to create efficient layouts for offices, retail spaces, and hospitality environments, improving functionality and customer experience.

### **Real Estate**

Real estate agents can leverage the app to stage properties virtually, helping potential buyers envision themselves in the space and facilitating faster sales.

## **SOFTWARE**

The AR Interior Planner application will be developed using the Unity Software, a powerful game development platform known for its versatility and ease of use. Unity's robust AR features and extensive library of assets will enable efficient development and deployment of the AR Interior Planner app across multiple platforms, ensuring a seamless user experience.

This Documentation of the project expresses the idea about the AR project that includes objective and research findings, and the software tool that will be used to develop this augmented reality application.