iOS App Dev Executive Summary
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EKKO
AR Camera

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Executive Summary

Ekko is an AR-powered camera that allows you to record and save videos and live photos with the virtual world. Many applications from social media to e-commerce now feature AR, but they all offer them in self-contained experiences that are not savable to the user. With Ekko, users can produce videos in AR and save them to their local device/iCloud so that they can edit them later or share them to the world at their convenience.

The app features two shooting modes: 1) a 10-second video mode and 2) a 3-second live photo mode. These formats were chosen to help narrow down the user's options and guide their creative direction. While recording, a loading/progress ring indicator surrounds the record button to provide feedback to the user on how much recording time is left. The video or live photo is then saved to the user's photo library, which means also their iCloud based on settings.

A default AR object is provided in the app at this stage - a 3D fighter jet. The app can later be extended to provide a plethora of 3D objects to allow users to choose their favorite virtual environment. Personally, I would have gone for a dancing Pikachu. It also records the audio and synchronizes it to the video in the output. The audio can be replaced with optional 10-second song snippets (provided by the app) in future versions to allow audio overlay in the recording.

The app was a major challenge for me since I wanted to deviate away from the standard stuff we learned in class and explore a major interest of mine, mixed reality and creative media content. AR is not only a new technology for the world, but even Apple's AR frameworks such as ARKit, SceneKit, RealityKit, and SpriteKit are very young and still evolving. The fact that there is no built-in way to record AR scenes was something I wanted to solve (even developers used to programmatically code screen recording in order to accomplish this).

In addition, the app lets me dive deeper into concurrency programming by incorporating many multithreaded tasks in the application. I learned to engage the camera module.