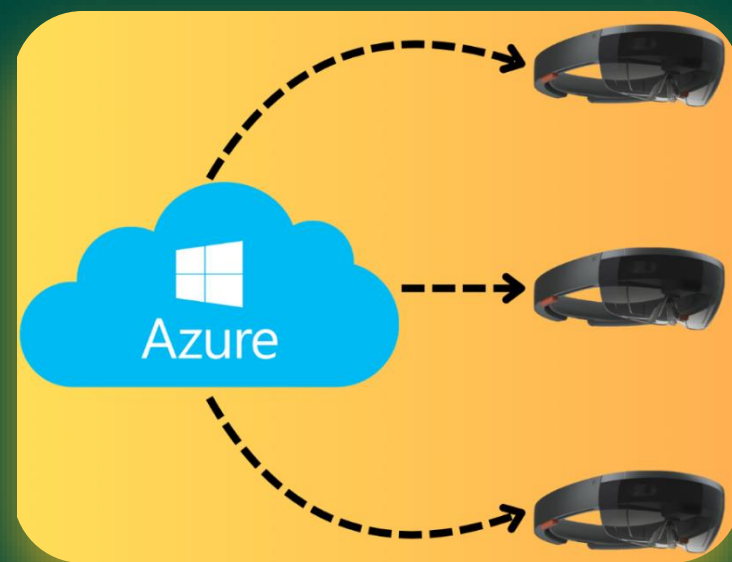


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04/26/2024

## Summary

- We worked with the HoloLens 2 augmented reality device developed by Microsoft and provided by the ADSAIL lab at UAA.
- We developed a guided tour experience with the HoloLens which have points of interest such as games, pictures, and text to interact with.
- The end goal was to provide a showcase for the ADSAIL lab at UAA and give people interested in attending UAA engaging and fun ways to get to know and navigate campus.

## Tools Used



### Microsoft Azure

- **Spatial Anchors:** object location
- **Data Tables:** metadata
- **Blob Storage:** photos

### Mixed Reality Toolkit

- Development Tools for HoloLens in Unity

### Unity:

- Game engine used for development



## Tour Design: Nodes

- Start
- Point of Interest (P.O.I)
- End
- Connection

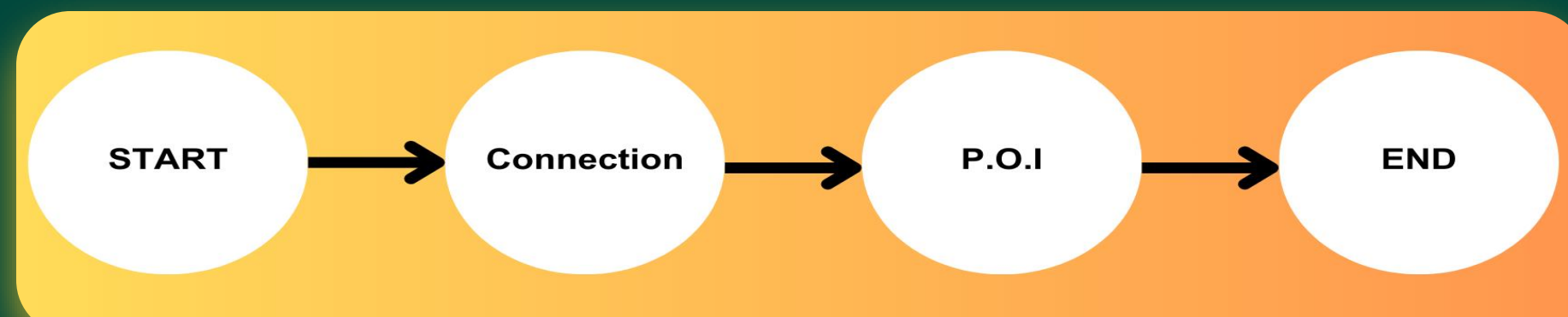


Figure 1: ADSAIL Lab Provided the HoloLens and development environment

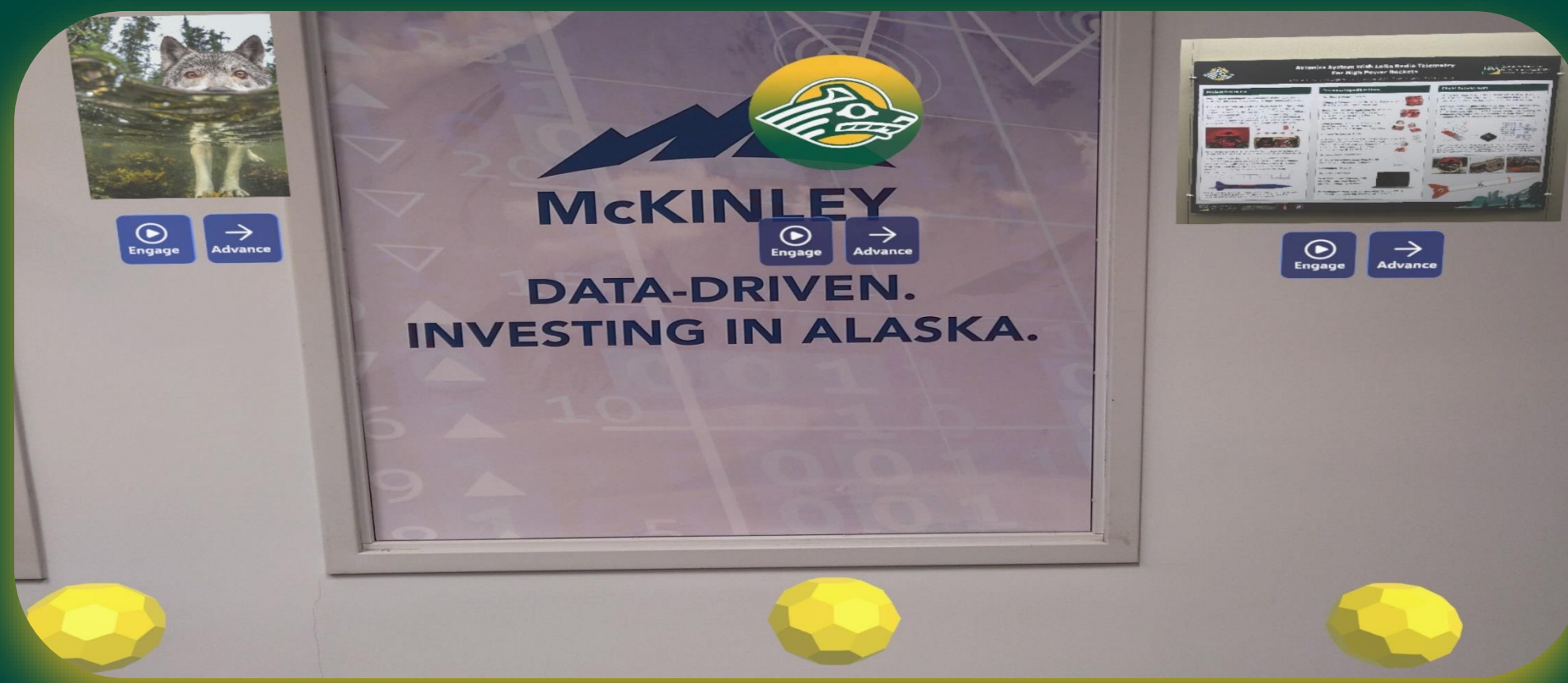


Figure 2: Points of Interest within the HoloLens 2 Application

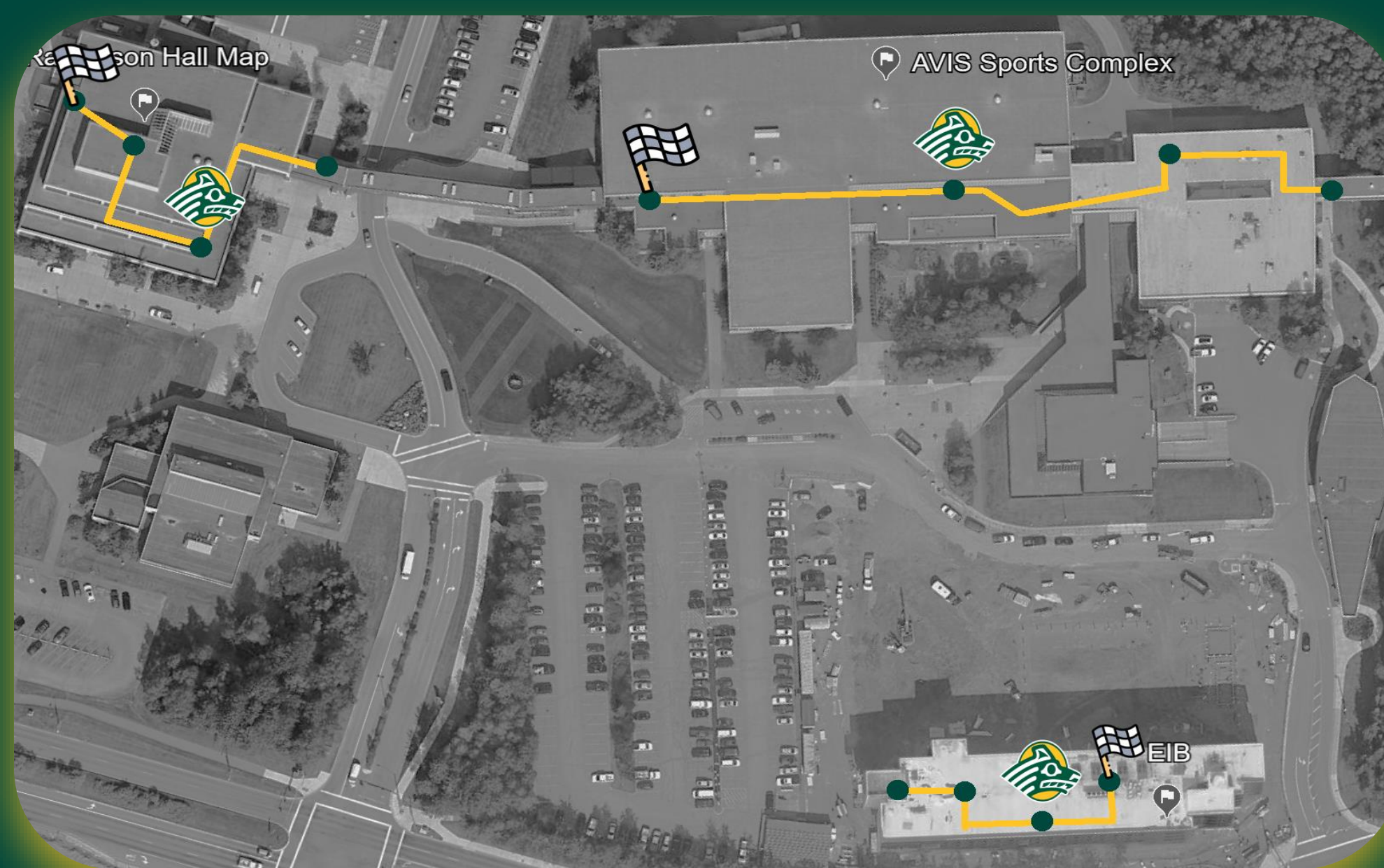


Figure 3: In the future we can create multiple maps for tours anywhere

## Project Outcomes



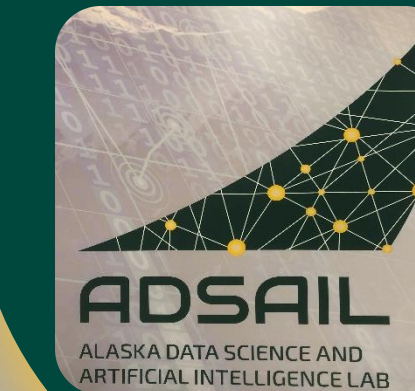
- **Documentation** covering HoloLens 2, Unity, MRTK, and Azure. This is aimed at assisting future developers in creating new applications or existing ones



- **Two applications:** Developer & Tour mode. Developer mode allows for map creation, point of interest development and testing. Tour mode is used for navigating the created map.



- **Points of Interest:** The application has three types of holograms as P.O.I's as demonstrated in Figure 2: Photo holograms, Interactive Games, and Slideshows.



- **ADSAIL Advertising:** We showcased the lab for future project development and use among UAA students. Figure 1 demonstrates the student engagement with the ADSAIL lab.

## Future Works



- Data Structure development that are non-linear for multiple paths like graphs
- Create multiple maps across campus (Figure 3)
- More hologram types like audio exhibits, video players, and tour avatars.
- Persistent points of interest shared across devices like the avatar tour guide in sync for each HoloLens user.

## Acknowledgements

We want to thank the ADSAIL Lab: Dr. Kenrick Mock, Dr. Helena Wisniewski, and Maksim Chepurko. Additional thanks to the Masters students of Geomatics at ETH Zurich.