# OHuddle Augmented Reality Mural

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We are creating an augmented reality application for a mural in downtown Wooster that showcases artwork done by OHuddle students and mentors.

## OVERVIEW

Our team developed an augmented reality (AR) application for a mural in downtown Wooster for OHuddle. Users can scan a QR code with their mobile devices to launch the application on their browsers. By pointing their cameras at different sections of the mural, users see elements pop out and can interact with them through clicks. We used 8th Wall, a web-based AR development environment, A-Frame.js, an open-source JavaScript framework, and Anime.js for animations. Our main goal was to create a seamless web-based user experience that is consistent across both Android and iOS devices.



## CLIENT

**OHuddle** is a nonprofit organization based in Wayne County with the mission to support and empower youth in local schools by providing mentorship programs that match school-nominated students with adult mentors.



## EXPERIENCE



At the beginning of AMRE, none of the team members had prior AR experience. Therefore, we all learned new AR development skills, gaining competency in libraries such as Aframe.js and in the entity-component-system (ECS) code design architecture which facilitated our collaboration and the extensibility of our project. These skills aren't limited to AR development and apply to other fields of computer science, including web development. The project required a lot of debugging and code maintenance, as well as project management, adaptability and communication skills.

## CONCLUSION

Through communications with our client, we would discuss the different features they would like to see within the application and implement sample projects that include them for demonstrations. Our final step was to create a cumulative project that supported all these features together, which we presented to our client. This final project was built using a mock-up mural the team created with the help of our advisor Tracy to advance our development and testing process. Our team plans to extend the application by using the actual mural as input once a printed version is available. This work is planned to continue in the Fall, as the OHuddle leadership hired us to continue working on this project in the next term.

## ACKNOWLEDGEMENTS