In Fall 2018, Marshall University Research Corporation (MURC) awarded several Marshall University undergraduates with the Undergraduate Creative Discovery Scholar and Undergraduate Research Scholar Awards. One of the recipients was Timm Johnson, who worked with faculty mentor Matt Mundell to develop:

# MU SkyView

## AR Map of Marshall University

Augmented Reality (AR) is a modern technology which can be used on mobile phones to place virtual objects in the real world. MU SkyView uses AR to allow the user of an <u>ARCore supported device</u> to place a 3D map of Marshall University's Huntington Campus onto the floor or a table in the real world. They can then see and interact with it through their phone screen.

While maps are helpful, new students at Marshall University often need help finding their way around campus. MU SkyView will help them better understand campus by seeing the whole thing in 3D. They can also tap on buildings to see basic information about them. Some students attend college for years and still don't know about everything on this campus, but this app gives them an easy way to see everything.

## Credits:

#### Anna Fox

Created detailed models of most of the buildings on campus during a summer project in 2007 (later updated). The models were put online for free use on <u>3D Warehouse</u>.

#### Timm Johnson

Used Unreal Engine, ARCore, and other software to develop the "MU SkyView" application for Android in Fall 2018.

#### Matt Mundell

Faculty mentor on the "MU SkyView" project in Fall 2018. He helped guide and plan the project throughout the semester, and assisted in debugging and testing.

## Cameron Asbury

Worked with Timm Johnson on "Project Marshall Drone" in Fall 2017, in which they developed a virtual Marshall University map in Unreal Engine. This project was the starting point for MU SkyView.

#### Linda Newman

Marshall University's Facility Analyst, who provided information about the buildings on campus so that they could be accurately modeled and represented.

## Thanks to:

## Brian Morgan

For loaning out the CIT department's drone for several weeks during development and providing information regarding prior students' work on similar projects (including Anna's models).

## John Maher and MURC

John Maher is chair of MURC, which received and approved this project.

For more information, contact Timm Johnson at <a href="mailto:sonictimm@gmail.com">sonictimm@gmail.com</a> and include "MU SkyView" in the subject line.