# Individual Contributions Breakdown Page

Table of Contents

[Individual Contributions Breakdown Page 1](#_Toc119429883)

[Section I: Problem Statement 3](#_Toc119429884)

[Objective & Deliverable 3](#_Toc119429885)

[Motivation 3](#_Toc119429886)

[Significance 3](#_Toc119429887)

[Section II: Related Work 4](#_Toc119429888)

[Alternative Software/Tools 4](#_Toc119429889)

[User Benefit 4](#_Toc119429890)

[Section III: Features 4](#_Toc119429891)

[Main Features 4](#_Toc119429892)

[Section IV: Design Specification 4](#_Toc119429893)

[ER Diagram 4](#_Toc119429894)

[Class Diagram 4](#_Toc119429895)

[User Interface Diagram 4](#_Toc119429896)

[Section V: Implementation Details 4](#_Toc119429897)

[Software Components 4](#_Toc119429898)

[Required Tools and Technologies 4](#_Toc119429899)

[Timeline 4](#_Toc119429900)

[Section VI: Test Strategy Applied 4](#_Toc119429901)

[Unit Test 4](#_Toc119429902)

[Integration Test 4](#_Toc119429903)

[System Test 4](#_Toc119429904)

[Section VII: Discussion 4](#_Toc119429905)

[Unresolved Issues 4](#_Toc119429906)

[Limitations 4](#_Toc119429907)

[Future Directions 4](#_Toc119429908)

[Section VIII: Conclusion 4](#_Toc119429909)

[References 4](#_Toc119429910)

[Appendix 4](#_Toc119429911)

**Section I: Problem Statement**

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## **Objective & Deliverable**

The SCSU campus covers about 168 acres and has many buildings. One of the most important buildings is the Buley Library. A major problem that students encounter is locating various study room and departments in the library. This project delivers a 360 virtual tour of the library’s interior, showcasing study rooms, Hoot Loot printer locations, IT Help Desk, Academic Success Center and other important departments and resources.

## **Motivation**

This project helps current and incoming students along with the SCSU staff members locate these locations through a virtual tour. Students can control their navigation and spend time in the areas that are most relevant to them. With a virtual tour that has an interactive 360 map, embedded videos, and relevant information about the school, students have an experience that makes the school come alive in a new way.

## **Significance**

A virtual tool helps save students a lot of time. Take a scenario whereby a student is planning to book a study room to prepare for their final exam in Buley. Instead of having to travel from their present location to come and ask for the room, they navigate the tour prior to their study hours and view where their rooms are located instead of wasting their time looking for the room. This saves them valuable time and money. The same scenario goes for finding departments.

# **Section II: Related Work**

## **Alternative Software/Tools**

This project uses a Theta Z1 360 Degree Spherical Camera with Dual 1" Sensors USA Model camera. This camera allows us to capture 360 photos of Buley and allows the user to see clear and high-performance angles. The Kuula Software is used to connect all the pictures together and create the virtual tour experience. Visual Studio code is used to create our website design with languages like HTML, CSS, bootstrap, JavaScript and React. The website is hosted locally so that all team members have access.

## **User Benefit**

By implementing 360 virtual tours our college now has the capacity to reach students on the other side of the country and can make the campus accessible to more students than ever before. 360 virtual tours make it possible to engage with students who ordinarily wouldn't be reached. It is far better than having a 2D model with less functionality. 360 tours can help students engage more with the content and have a better understanding of certain details about departments and colleges.

# **Section III: Features**

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## **Main Features**

The 360-tour experience provides an entire interactive experience for the users. The users have the capability of navigating to the website and seeing the tour. with users, they will be able to navigate wherever they choose to provide the users with an in-person experience. Webpage will provide the user with a seamless virtual experience. Links to guide the user and show them information about the library. These links can include descriptions related to areas of the library as well as contact information.

**Rotate and zoom**

The tour allows the user to zoom and span at their leisure and give attention to specific details. The user can move forward, backwards and sideways within the frame. There is no limitation since there is a complete shot of all angles.

**Side panel**

The user has the ability to see a lists of all rooms and resources available on the floor they are viewing. The side panel provides direct links to related pages and allows the user to navigate back to the tour.

**Hotspots**

The tour hotspots provide an interaction for the users to click on to view additional information about a particular area within the tour such as the IT Help Desk or Academic Success Center.

# **Section IV: Design Specification**

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## **ER Diagram**

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## **Class Diagram**

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## **User Interface Diagram**

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# Section V: Implementation Details

## Software Components

## Required Tools and Technologies

## Timeline

# Section VI: Test Strategy Applied

## Unit Test

## Integration Test

## System Test

# Section VII: Discussion

## Unresolved Issues

## Limitations

## Future Directions

# Section VIII: Conclusion

# References

# Appendix