Project Plan
Spectrum Health Virtual Reality Experience

The Capstone Experience

Team Spectrum Health
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Functional Specifications

• Web-based VR tour of Spectrum Health facilities
• For patients and visitors curious about room layout and procedures
• Allows for 360° viewings of rooms and guided video
• Viewings will give detailed information on machines in the room
Design Specifications

• Viewable on any computing device with web
• Mobile can use gyroscope to view rooms
• Optional VR support through A-Frame
• Admin access for new content uploads
• 2D to 3D image conversion for easy content creation
Screen Mockup: Desktop Home
Screen Mockup: Mobile Home
Screen Mockup: Web VR Page
Screen Mockup: Admin Access

VR Administrator Access

Image: Img.png

Building:

Room Number:

Text Box 1:

Enter a description here...
Technical Specifications

- HTML/CSS/JavaScript
- A-Frame for 360° viewing
- ASP.NET Core (C#)
- Entity Framework Core
- Microsoft Azure Team Services
- GIT Repository
System Architecture

Hosting

360° Photo/Videos

Upades

Configuration

Admins

SPECTRUM HEALTH

ASP.NET

A-Frame

HTML 5

Website

PC

Mobile

VR Headset

User

The Capstone Experience
Team Spectrum Health Project Plan Presentation
System Components

• Hardware Platforms
  ▪ Computer (Google Chrome Browser)
  ▪ Mobile (Google Chrome Browser)
  ▪ Oculus Rift VR headset with controllers

• Software Platforms / Technologies
  ▪ HTML/CSS/JavaScript
  ▪ A-Frame
  ▪ Visual Studio 2017
  ▪ Microsoft Azure Team Services
Risks

- Risk 1 (Low)
  - Git pull and branching requests
  - Close contact with Spectrum Health employees
- Risk 2 (Medium)
  - Limited A-Frame documentation
  - Prototyping and asking Spectrum Health contacts
- Risk 3 (Medium)
  - Admin texture coordinates
  - Creating small proof of concepts
- Risk 4 (High)
  - Hit box conversion
  - Prototyping formulas for accuracy
Questions?