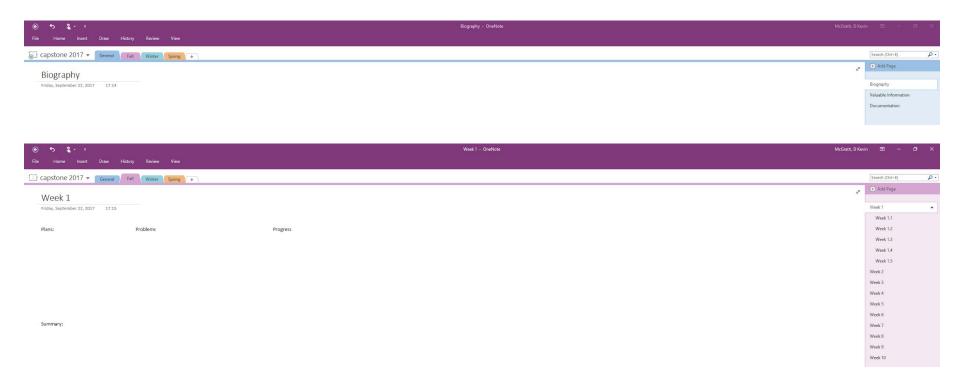
iCreate Generative Design in Virtual Reality

Members:

Hannah Solorzano Rhea Mae Edwards Nabeel Shariff

iCreate - Setting Up OneNote



iCreate - Written Biography

- Future Self
- Close to Retirement
- Career and Highlights
- Third Person Perspective
- Achievements and Accomplishments

iCreate - Resumes

- Basic Resume
- Brought and Peer Reviewed in Class
- Alternative:
 - Curriculum Vitae (CV)

iCreate - Project Preferences

- Online Database
- Top 5 Project Picks
- Reasons Why Description Possibility
- One Person Don't Want to Work With Possibility
- Talking with Clients Beforehand Possibility

iCreate - Receive Capstone Group

- <u>Client:</u>

Dr. Raffaele De Amicis (RdA) Research Professor of the College of EECS

- <u>TA:</u>

Beham (Ben) Saeedi

- <u>Members:</u>

Hannah Solorzano Rhea Mae Edwards Nabeel Shariff

iCreate - Contact Client

Email and bio:

- raffaele.deamicis@oregonstate.edu
- http://eecs.oregonstate.edu/people/de-amicis-raffaele

iCreate - Weekly Meeting Times

- Client Meeting Time:

9AM → **4PM on Mondays**

- TA Meeting Time:

1:30PM - 2:00PM on Tuesdays

iCreate - Problem Statement, Individual Works

- Individually Done
- Own Views
- Problem Definition
- Proposed Solution
- Performance Metrics

iCreate - Problem Statement, Final Draft

- Group Work Document
- Problem Definition
- Proposed Solution
- Performance Metrics

iCreate - "Under Promise, Over Deliver"

During week 4, the team met with Dr. Amicis and talked about an exercise to ease us into 3D development for VR. The exercise was to generate a roman water aqueduct via code, and we were asked by when we could deliver.

The TA suggested the best thing to do is to underpromise, and overdeliver. So the team thought three weeks would be sufficient for this task.

Additionally the team also completed the first team assignment which was the iCreate problem statement,

iCreate - Aqueduct Implementation

For the purposes of getting into 3D development in VR, our client Dr. Raffaele De Amicis asked us to write code that could generate a 3D roman water aqueduct made from individual 3D bricks.

The team was able to successfully finish code that could generate several pillars, but forming the arch was challenge and is still incomplete.

iCreate - User Requirements Document

The user requirements document (SRS) details iCreate's specific requirements needed to be fulfilled to complete the project.

After integrating feedback from the instructors, client, and TA, the team was able to produce an excellent version of the iCreate SRS.

iCreate - Technology Review and Implementation Plan (Rhea Mae)

- Headsets
 - HTC Vive*
 - Oculus Rift
 - Playstation VR
- Programming Languages
 - C#*
 - C/C++
 - Java

- Connective Software
 - Dynamo
 - Grasshopper Iris VR
 - LeapMotion

iCreate - Technology Review and Implementation Plan (Hannah)

- Development Environment
 - Unity*
 - Unreal Engine
 - OpenGL
- Graphics Card
 - GeForce GTX 970
 - NVIDIA TITAN Xp
 - AKiTiO Node Thunderbolt 3

- User Controls
 - Oculus Rift Touch Controllers
 - Hands
 - Sony Controllers

iCreate - Technology Review and Implementation Plan (Nabeel)

User Interface

- Non-diegetic UI
- Spatial UI
- Diegetic UI

Operating System

- Microsoft Windows
- Apple Macintosh
- Linux

Distribution Methods

- Steam Store
- Oculus Home
- Executable File

The tech review document served to look at the different components that go into developing iCreate, and choosing a technology for each component that best fit the project.

iCreate - Design Document

- Group Work Document
- Individually → Group
- Combining Technology Review and Implementation Plan documents

iCreate - Client Meetings

Possible Additional Slide

iCreate - TA Meetings

Possible Additional Slide

iCreate - Individual Experiences (Rhea Mae)

Possible Additional Slide

iCreate - Individual Experiences (Hannah)

Possible Additional Slide

iCreate - Individual Experiences (Nabeel)

Possible Additional Slide