#### **Final Thesis Portfolio**

### **Artist Statement:**

Charlie Miller is a Portland Oregon based 3D designer, animator, illustrator, and storyteller. Charlie is a multidisciplinary artist whose work explores personal narrative, visual storytelling, and storytelling in linear or abstract forms. Their work explores documentary, interview and different mediums to communicate these stories, with a keen interest in which medium or mediums can make a story as impactful and effective as possible. With the objective of bridging art, technology and the sciences Miller's work changes and evolves as new creative tools emerge. Bridging these concepts, is a crux of unimaginable change for those suffering from all sorts of ailments. From pain management to extended hospital stays, to folks that need an outlet to be creative - theirl as an artist is to always be learning, adapting and using art as a way to spur greater change.

# **Project description:**

An immersive 3D virtual reality experience of two interviews about losing someone to Alzheimers and Dementia, and the complexity of not being able to know someone because they're no longer fully in charge of their faculties.

### Line of inquiry:

How can you visually articulate a disease, without personally being diagnosed yourself? Can that be done through storytelling? What would be the benefit of visually describing what something may feel like? Who is this story for? Can visually expressing these stories help give a broader audience a new perspective or understanding of these diseases? Is it possible to utilize art and technology to help patients who are suffering through stages of dementia(s) and Alzheimers have a higher quality of life? Is quality of life more important than quantity and how long one may live?

## **Thesis Abstract and Summary:**

Abstract: A 3-10 minute VR and literal reality experience sifting through a virtual space emotionally, as well as sifting through physical objects such as images, letters, a briefcase, books and a piece of the Berlin wall. This is to be a piece that is able to stimulate almost all of the senses. The work will be held in the PNCA B10 basement gallery to invite participants to physically go down to the lowest point of the school and enter into a sort of physical and mental time capsule. Teasing out the idea of using one concept in many iterations from the physical, the virtual, to the emotional. Participants then are welcomed into the space with the sound of music on a victrola record player, off to the right is the physical way to interact with this work, and just in front of you the virtual way to interact with this work. Once you place the headset on you are submerging into another layer of self reflection. Hearing interviews and being immersed in a warm, inviting room that is simultaneously empty and also full from the props within the virtual space, as if you were going into a home where someone once lived but now it is like it's an abandoned shell; empty and hollow. A metaphor for the disease that has robbed five generations of women in my family. Upon finishing the work virtually or physically folks are invited to interact with the parts of the work they are interested in and discuss with other participants within the space.

#### **Oral Defense:**

#### Slide 2: What it was

This project has been through many different iterations - from a VR piece, to a 2D animated documentary to a 3D VR experience of an interview - I know that doesnt sound different from a "VR piece" but trust me it's complicated and very different! This is one of the many 2D animations that I made for my original concept of an animated documentary - which was telling 7 different stories of caregivers from their perspectives about taking care of someone with these diseases. Not that this story is not important, it just required so many different types of work that I would one day love to explore, but maybe that day is not today.

### Slide3: What it was - what inspired the changes?

A lot, actually. I met with John Summerson and he said point blank why am I making a thesis in 2D animation when my goal is to be working in 3D? And that really started to weigh on me. I have always loved 3D design, I even foolishly made my junior film partially in a 3D software (which I definitely didn't know and if I could go back and remake it I know I would make something 10x better - but alas I know the learning curve is immense) because I had fallen in love with 3D design after Zak Margolis's 3D course.

Then in a truly life changing turn of events Marilyn Zornodo connected me to the unreal engine summer fellowship and I applied and frankly based on the number of applicants they accepted, I didn't hold my breath. I let it go and figured there wasn't any way I would get that fellowship -

especially since it is for industry professionals. I went on with my summer taking summer courses, working on side jobs and making this 2D animated documentary. Then I got an email that I was accepted. Which, I was absolutely gobsmacked by. I then pushed everything into the fellowship, which was a 5 week intensive program that by the end you have a finished short film to present to everyone within the fellowship. To learn a brand new software in 5 weeks with homework, presentations, pitches, storyboards, and 1:1 meetings with mentors came out to about 55 hours a week worth of work. All on top of three summer classes, thesis and side jobs to make some money and pay my rent.

But once I finished the fellowship, it changed everything. I knew the very surface of this software that is incredibly vast. And it led me down a whole new path of creation.

Here is a quick ten second clip of my finished short film from the fellowship.

#### Slide4: What it was - The Briefcase

Okay, so you will hear me talk about this a lot, no matter what changed in my career, what mediums I was using I kept getting called back to this briefcase.

I never really knew much about my family or our family line mostly because we just never talked about it- so when I got my grandmother Lois's old banged up leather briefcase filled with stories after she passed, and I found pictures and other materials about where and who I come from it was like a treasure chest to find myself but also to find out about the women and people who came before me. See Lois kept meticulous details about her family lines and the strong women before her that also suffered from Alzheimers and dementia(s). Which she in turn also succumbed to after time. This thesis started out as so general and it needed a deep focus to make it hopefully as impactful as I would like to make it. So this is now a story of family, disease, and loss. A bit of backstory here before we get too far gone -. By the time I was able to really try to connect to my grandmother Lois, she was no longer here and Alzheimers had narrowed her memory to a few select moments. So this thesis began as a way to learn about this disease - But that started to feel like saying all someone was, is a disease and she was so much more than that. So my thesis is about how this disease has run through the limbs of my family tree and shaken the leaves down to the ground like puzzle pieces that I have the honor of putting back together.

## Slide5: What it is NOW

This is now an immersive 360 experience of my recollections of Lois, and a part of the initial interview I had with my mother about Lois when this was still an animated documentary. Here is a trailer I made of the 360 degree experience that gives a handful of snapshots of what can be discovered within the experience.

Slide5: What it is NOW - The Research

The research for this project is pretty expansive - from the briefcase, to the deep dive that I had to go into coding, of how to create VR, how to I build something that bridges all of the things that I love? Technology, Art, and Science - and is that even possible.

I had to access numerous tutorials, take unreal engine courses online, reach out to fellowship alums via slack, build what seemed like endless blueprints, and then the google searches of why things simply weren't working.

I got to sift through this briefcase and find images, stories, notes, and then dive down the rabbit hole to learn more about who Lois was as a person, but also what she loved, who she loved. I got the honor of sifting through notebooks, stories, that are all way too much to jam pack into one single thesis. Because a person is much more than one story, which leads me a little bit about why my thesis is more than just a 360 experience. It is also an in person experience of her - you get to also sift through some stories, notes, and pictures just as I did - and see in person some of which has also landed in the 360 degree experience.

### Slide 6: What I brought in:

I have brought in the literal briefcase - in its banged up glory with some of the images and stories that I discovered in it. So you also get to look through this case and discover it just as I did.

I learned of the strong bold women before me and you will also if you read and explore the case as I did and still do - I swear I find new things in there everytime I open it. Must be magic.

Here is the story that Lois left and she wrote about her maternal grandparents - as well as a publication about her husband and my Grandfather Ray - I brought that in because he was..one of the only people I saw her truly love. She loved him fiercely. And he is briefly annotated within the VR piece and I wanted you to be able to discover a piece of her through knowing a bit of who he was also.

### Slide 8: What I brought in:

A book that I thought helped articulate Lois just a small amount - one that dictates shorthand she may have used during her time as a secretary.

A small compilation of videos I discovered in my research of who Lois was - that plays within the experience but I also wanted to bring it outside of the experience so that this thesis would be an ounce of multi-dimensional as she was. This thesis is to be continually pulled back to find more about her, myself, and people in general. This thesis is more than 360 interviews - it's an experience and a journey I am taking you on with me. Because, these diseases are not just one story - they are our story.

## Slide 9: What I brought in:

The Berlin wall piece was one of the only items I was able to have after my grandparents passed on- it is increasingly special as I learned more about Lois but also Esther and Stella, Stella was Lois's mother who also suffered from Alzheimers, and Esther was Stella's Mother, who don't ya know it also suffered from Alzheimer.

Esther is one of our familial Icons, at least to me.

Here is a bit of what Lois wrote about her. "Esther was born October 14th 1891 in Smorgon, Poland. She immigrated to the United states because Ester was incredibly active in the 1905 Revolutionary movement and was sought by the Czar's police. She settled into a small polish community in New York city in the early 1900's where she married John (he was catholic and her family was jewish - when they found out about this they disowned her and she never saw them again.) In 1919 when Palmer was the Attorney General, he made raids on Russian settlements because he was afraid of the Communisitic movement coming to America. At the time Esther was secretary of the Union of Russian workers. She spoke six languages and acted as an interpreter for many. One night John was arrested and kept in jail overnight by Palmer and intimidated to disclose who "E. Moiseyev" was; John insisted he didn't know. When in actuality E. was Esther - submitting radical articles to then a russian newspaper abroad. Palmer assumed the author was a man. In 1929 they moved to a farm miles away because of Esters severe headaches. Lois ends these five page writings with "My grandfather John died at a comparatively young and healthy 77 years of age, and it was incredibly sad to see my grandmother subsequently develop Alzheimers and live on to 86 years of age without him."

I think that note is especially complicated and emotional with the framing of Lois's passing. She had Alzheimer's for years, and when my grandfather Ray passed she didn't last long - only two more weeks. I think maybe her heart and mind couldn't take life without his presence. When I say her love for him - I mean it. Alzheimer's made her..struggle with her emotions..but no matter what - she always loved Ray.

## Slide 10: Why this medium?/ Mediums?

Because it's immersive, it's cutting edge and to me this type of creation, and exploration is the future.

How better to get to know someone or know the pieces of them than in a new immersive, experiential way?

VR, AR, and the metaverse which I am sure you have heard being thrown around all willy nilly is the next stage of scientific discovery, entertainment, but this applies to education, art, healthcare, it is like kicking open a new door of discovery - its an incredibly vast tool thats uses have only begun to be broken down.

I am so grateful for the help of everyone that weighed in on this project to even make it possible, to the point that it currently is. From the Animated Arts department, to the incredible studio I work for Sticky co. They spent days trying to help me sort out how to side load my project, and in the end my project was too hefty to live as a VR piece solely that could be continually explored.

To my amazing mentor Rose Bond who just has been rooting for me from the beginning and every teacher that has given me grace - and of course my incredible family. Without the help of my partner trishelle keeping me sane, and the help from my chonky dog sondheim I know right now I wouldn't have anything to share.

So this project will continue on with more technological advances, but also with more personal knowledge. But I built a 360 degree camera through blueprint coding into my experience so that it remained experiential, and immersive. Because I thought that was important.

And then I also felt that this thesis was bigger than what I could pack into a digital space, it was personal, it needed to be seen, held, touched, explored, in hopes to make the impact I think this project deserves.

## Slide 11: The Impact.

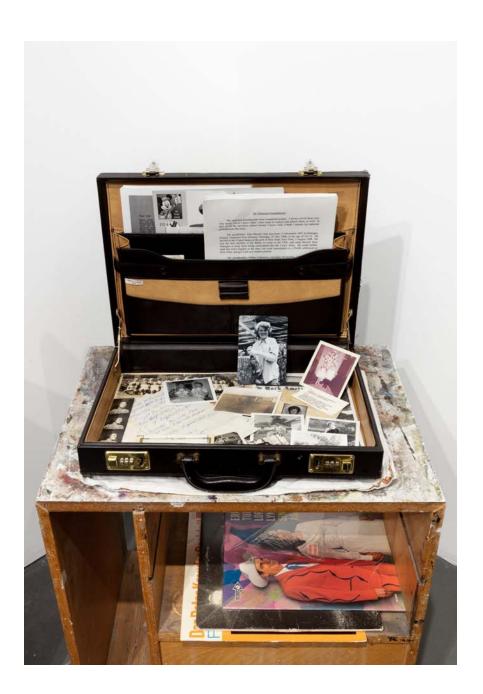
This was a project that seems to me almost too simple, but there are so many layers of complexity that come with it. The impact of this project I hope is beyond what I am able to articulate because I hope it goes beyond here and now - but this project this entire thesis process truly taught me the importance of the "pivot" you need to be flexible as the work shows itself through time, tears, stress, youtube tutorials, not so incredible essays, and all the sudden its 4 am and you are researching how to code, you have to learn and grow as your project does otherwise it can undercut everything you did for it.

## Slide 12: Please go explore!

And feel free to ask me any questions that may arise as you sift.

### **Documentation of Final Thesis Project:**

Still from physical experience:

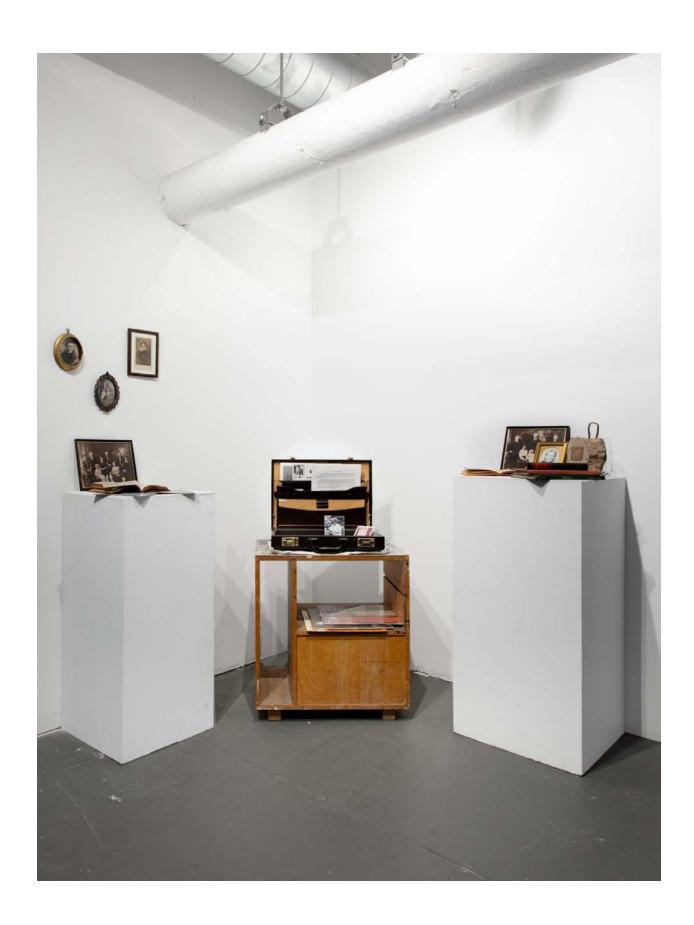












Stills from the virtual experience:







## **Annotated bibliography:**

A docu-series that follows 7 individuals all at different stages of Alzheimers.

The Alzheimer's Project. "The Memory Loss Tapes." HBO.com. 1 hour 24 minutes, (2009).
 <a href="https://www.hbo.com/documentaries/the-alzheimers-project-the-memory-loss-tapes">https://www.hbo.com/documentaries/the-alzheimers-project-the-memory-loss-tapes</a>

This is the site where I have found compiled data and statistics about these diseases.

 "Facts and Figures." Alzheimer's Disease and Dementia. Accessed March 1, 2021. https://www.alz.org/alzheimers-dementia/facts-figures.

A Graphic novel about his fathers disappearance into Alzheimers - short, precise, and incredibly narrated.

• Haugse, John E. *Heavy Snow: My Father's Disappearance into Alzheimer's*. Deerfield Beach, FL: Health Communications, 1999.

Article about creation of narrative and story

 Connelly, Michael F. and Clandinin, Jean D. "Stories of Experience and Narrative Inquiry" *Educational Researcher*, Vol. 19, no. 5 (Jun. - Jul., 1990): 2-14, Accessed February 16th, 2021, https://www.jstor.org/stable/1176100

Jay Newton-Small, a writer and storyteller, talks about her experiences with alzheimers and her inspirations to create a company to help tell the stories of loved ones before they are lost forever.

- Newton-Small, Jay. "How storytelling can improve Alzheimer's and dementia care" Filmed June 14 2017 at TEDxMidAtlanticSalon, TED video, 10:04, https://youtu.be/8bhT4mdAW98
- MemoryWell. Accessed February 7, 2021. https://www.memorywell.com/.

 Newton-Small, Jay. "How to Prevent an Alzheimer's Caregiving Crisis in America." Time. Time, November 20, 2019. https://time.com/5731578/alzheimers-caregiving-crisis/.

An article discussing the importance and place of animation and its evolution into documentary and in a courtroom.

MARCOTTE, PAUL. "Animated Evidence." ABA Journal 75, no. 12 (1989): 52-56.
 Accessed April 14, 2021. http://www.jstor.org/stable/20760801.

An animated documentary about Alzheimer's and Dementia(s)

 "Do I See What You See? A Film about Dementia, Disconnection and Seeing the World Differently." YouTube. YouTube, April 19, 2018. https://www.youtube.com/watch?v=jekW8Z93LMw.

Articles referencing scientific findings on the use of VR in medicine

- Ang, JA. 2017. "The DOE Exascale Computing Initiative: ECP and Holistic Co-design." Computing@PNNL Seminar Series, Dec. 12, 2017. Richland, WA, SAND2017-13295 PE.
- Ang. JA. 2021. "Biography"
   https://www.pnnl.gov/science/staff/staff\_info.asp?staff\_num=9441
- Thomas, Dr. Liji. "Applications of Virtual Reality in Medicine." *News*, 11 Jan. 2021, https://www.news-medical.net/health/Applications-of-Virtual-Reality-in-Medicine.aspx.
- University of Kent. "VR can improve quality of life for people with dementia." ScienceDaily.
   ScienceDaily, 9 May 2019. <a href="https://www.sciencedaily.com/releases/2019/05/190509080035.htm">www.sciencedaily.com/releases/2019/05/190509080035.htm</a>>.

Luma Tabbaa, Chee Siang Ang, Vienna Rose, Panote Siriaraya, Inga Stewart, Keith G.
Jenkins, Maria Matsangidou. Bring the Outside In: Providing Accessible Experiences
Through VR for People with Dementia in Locked Psychiatric Hospitals. Proceedings of
the SIGCHI Conference on Human Factors in Computing Systems, 2019 DOI:
10.1145/3290605.3300466

The powers of social media and the ways your brain is impacted.

• Brake, Shannon. "5 Ways Social Media Is Changing Your Brain." *TED*, https://ed.ted.com/best\_of\_web/qQzsdX2Y#watch.

A virtual reality experience of these diseases built in tandem with those who have these diseases.

<a href="https://www.awalkthroughdementia.org/">https://www.awalkthroughdementia.org/</a>

### **Links to view Thesis work:**

Thesis Trailer:

https://vimeo.com/648398198

Thesis experience flattened:

https://vimeo.com/656389285