

**Final year project report**  
**Exploring Tools and Techniques for Stylized Rendering in Animated Short Films**  
**“Mistakes in the Mist”**

By

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This Report Presented in Partial Fulfillment of the Requirements for the  
Degree of Bachelor of Science in Multimedia and Creative Technology

Supervised By

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**DAFFODIL INTERNATIONAL UNIVERSITY**

**DHAKA, BANGLADESH**

20 August, 2025

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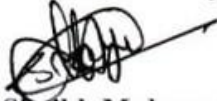
This Project titled “Exploring Tools and Techniques for Stylized Rendering in Animated Short Films “Mistakes in the Mist,”” submitted by Md Maniruzzaman to the Department of Multimedia and Creative Technology, Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Multimedia and Creative Technology and approved as to its style and contents. The presentation has been held on 20 August 2025.

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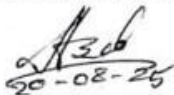
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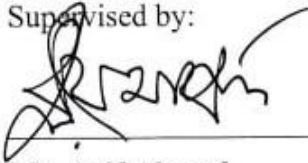
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I hereby declare that, I completed this project under the supervision of **Mr. Arif Ahmed**, Professor of Practice, Department of MCT Daffodil International University. I also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

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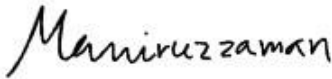
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## ACKNOWLEDGEMENT

First, I express my heartiest thanks and gratefulness to Almighty Allah for His divine blessing that made it possible for me to successfully complete my final year project Exploring Tools and Techniques for Stylized Rendering in Animated Short Films “Mistakes in the Mist.”

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## **ABSTRACT**

Mistakes in the Mist is a cool animated short about a little boy facing his scary childhood thoughts. The stories about a five-year-old who meets a monster made of water during a storm, and this monster stands for all his worries. The film has themes like innocence, fear, blaming yourself, and growing up emotionally. When the boy sees the monster, he blames it for wetting the bed, which is a kid's way of getting confused and feeling guilty. The film has a great look by using special animation tricks, like non-realistic rendering, cool shades, and active lighting, making the film very catching and dreamlike. The mist all around him stands for the boy's inner mess and fuzzy lines between what's real and what he imagines. These visual choices help the audience feel what the main character feels as he goes through this scary but self-knowing experience. This report takes a look at how the film was made, both the tech stuff and the art side. The focus is on how things like lighting, textures, rigging, and animation help show deep feelings and tell the story better. It also looks at the problems they had while making it, like getting the great look they wanted while keeping the movie consistent and emotionally strong. Overall, Mistakes in the Mist is a strong look at what kids are scared of and a different take on growing emotions. This study shares info about how animation can be a strong way to tell emotional stories, so it's good for animators and filmmakers wanting to tell stories with feeling through animation.

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# Chapter 1

## Introduction

Animation is great cause it can do stuff reality can't, letting artists dream up cool worlds and feelings. Stylized animation is getting big, mixing cool ideas with how things are made, which gives us a cool option to show feelings and tell stories. *Mistakes in the Mist*, a short animated film, is all about imagination and being scared as a kid, using a strange, not-real art style. It's about a 5-year-old kid who meets a weird water monster during a storm, which stands for the stuff he's worried about deep down. The movie makes you feel the fear and fun of being a kid by using special looks, shadows, and acting.

This write-up will look at what important stuff and tricks they utilized to do *Mistakes in the Mist*, checking out how it helps tell the story and get to your feelings. By looking at how they did the look, lights shadows, and moving the characters, this writing will break down how it all connects to the movie's topics like being a kid, thinking it's your fault, and being afraid. These are extra key to showing what the main character is feeling, letting make a fake world that still hits home cause it's about how kids think.

This writing will also check out any hard things they had making the movie, like trying to keep art free but still getting the tech right, and keeping it watchable while showing really big feelings. In the end, the goals are to grow better understanding of how to use strange animation to tell stories that get to people, like how kids are scared and use their imagination.

This breakdown will mean something to animators, filmmakers, and students who desire seeing how not-real animation can get real feelings from people, all while pushing animation forward in movies.

### 1.1 Background of the Study

Animation is a great way to tell stories. It lets you show feelings, thoughts, and stories using pictures. It started with simple drawings but has grown into detailed 3D stuff and computer effects. One cool type is stylized animation, where the art is more important than how real it looks. You can change shapes, colors, and textures to make people feel things or show ideas that are hard to explain. This lets artists be more creative and look at topics you can't easily show with normal-looking animation. Stylized rendering is really good at showing what characters feel inside. Animators can use it to show worries, nerves, and other feelings in a way that grabs your attention. *Mistakes in the Mist* does this by focusing on what a 5-year-old is scared of when he sees a monster made of water during a storm. The movie uses stylized

rendering to show how the boy feels inside and to look at how kids deal with being scared and blaming themselves.

The way they used lighting and animation was key to making the movie feel like a strange dream. Stylized rendering helped them mix imagination with real life. This made the story more emotional while keeping a sense of amazement and mystery. This look at the movie tries to explain how these methods add to the story's emotions and plot. It gives you a better understanding of how stylized animation can be used to tell complicated, emotional stories.

By checking out how Mistakes in the Mist was made, this look aims to show how stylized animation can make you feel strong emotions and look at childhood fears in a special way.

## **1.2 Problem Statement**

Making Mistakes in the Mist was tricky. We had to find a sweet spot between being artsy and getting the tech right, mainly to get the look and feels we wanted. See, doing animation with its own style gives you more room to be creative, but it can be tough to actually pull off. If you're not careful, cool visuals can mess with the story or lose the audience. Getting the shaders, lights, and character controls to play nice together is super important so the movie looks good and tells the story well. Usually, cartoons show feelings and dreams by blowing up how people move or how places look. But, if you don't do it right, it looks weird and doesn't hit you in the feels. One big thing we worked on was keeping everything looking the same while still showing feelings. How do you show what a kid thinks and is scared of using cool visuals? The movie needs to show that the boy is innocent, scared, and figures things out, but still feels like a dream. So, by looking at how we made Mistakes in the Mist, I want to figure out how we handled those issues. I will also share what I learned about using animation to show deep feelings, like when a kid is scared or uses their imagination.

## **1.3 Objectives of the Study**

This study looks at how animation styles and methods help tell an emotionally moving story in Mistakes in the Mist. It zeroes in on how certain animation tools helped show what the young main character was feeling. It also explores how the film's look backs up its themes of childhood fear and imagination.

Here's what the study will cover:

- Check out the animation styles in Mistakes in the Mist and how they play into the story's feelings and plot.

- Break down how lighting and shading boost the movie's dreamlike vibe and deep feelings, mostly in the scenes with the water monster.
- See how the character setup and animation brought out emotion in the characters, paying close attention to the boy's actions. These movements are key to showing his innocence, fear, and delicate nature.
- See how all the visual methods come together to show themes of self-blame, fear, and a child's feelings as they grow. It looks at childhood worries through animation.
- Give tips for animation projects going forward, focusing on making animation styles better, as well as animation tools and storytelling, to make things look good and hit people in the feels.

By doing all this, the study wants to add to what we know about animated styles and how well they can show deep feelings in animated movies with a story to tell.

#### **1.4 Research Questions**

This study wants to figure out how cool animation tricks help make animated movies that really hit you in the feels. Here are the things we're trying to figure out:

- How does the way Mistakes in the Mist looks help tell the story?
- We're looking at how they made the movie look dreamy and weird and if it works with the story. Can these visuals show feelings like fear or guilt, or would they need to look real to tell the story well?
- How do the lights and colors show what the movie is about?
- Like, how did the lighting make the mood? Did they use shadows to make scenes feel deeper? And how did the visuals show what was going on in the main character's head, like when the water monster shows up?
- How does the animation – like how the characters move – show how they feel?
- We're checking out how the kid moves and what his face does to see if it matches what he's feeling inside. Did they make his movements bigger to show he's innocent, or did they use small movements to show bigger feelings?
- What's hard about making animation look cool but still feel real?
- Basically, how do they make sure the movie looks artsy but still makes sense? Did any of the crazy visuals get in the way of feeling for the characters?
- What can other animation projects learn from Mistakes in the Mist?

- What did they learn about making the movie that could help other people? Like, how they rendered the animation, how they worked, and how they told the story using visuals. What could be better next time for making movies like this?

### **1.5 Significance of the Study**

This study matters because it shows how cool animation styles can stir up feelings and tell deep stories about what's going on in someone's head. Animation's great at showing things you can't really see, and using cool styles lets you tell stories in a really free way. Mistakes in the Mist does this to show what kids are scared of and how they imagine things, in a way that normal animation just can't. Looking at how they made the movie and the tricks they used, this study gives us good ideas about how stuff like lighting, shaders, and how things move can show deep feelings. This research is good for people who make cartoons and movies since it looks at how to mix being artistic with being good at the technical stuff to make stories better. The study says what's tough and what's good about using cool animation styles, mostly when you're trying to show feelings like being scared, blaming yourself, and feeling weak. These feelings are a big part of the movie, and how they show them makes the movie hit you in the feels and keeps you watching. Plus, this study gives ideas about how else you can use cool animation styles in stories. It shows how ways of making things look that aren't real can still make you feel things, giving you another way to do things instead of always trying to look real. What they found will help the field of telling stories with feelings in animation grow, giving ideas for jobs in the future that want to mix make-believe with what's real, mostly in jobs that want to look at deep feelings and what's going on in your head, mostly about being a kid and getting to know yourself.

So, this study doesn't just help you get animation tricks better, but it also says that cool animation styles could be great at telling stories that make you feel things.

### **1.6 Scope and Limitations**

This study looks at how Mistakes in the Mist was made, focusing on its production and animation. It checks how things like the style of rendering, lighting, shaders, rigging, and animation help tell the story and show feelings. The point is to figure out how these things come together to show the movie's main ideas about childhood fear, imagination, and guilt. By looking at the technical and creative sides, we can learn how they made the movie's strange and emotional look that makes the story better. Keep in mind, this study only covers one short animated film. So, what we learn here might not fit every kind of animation or other types of

movies. The tricks they used can be changed for other things, but the style and emotional stuff from *Mistakes in the Mist* might not work for all stylized animations.

Also, the study is more about the technical parts of the animation, like how they rendered it and the animation tricks. It doesn't go too deep into the feelings shown in the movie. Sure, the movie is about tough childhood emotions, but this study doesn't look at those feelings from a science or health point of view.

Lastly, this study isn't about what people thought of the movie. It's just about how it was made and the animation stuff. Other studies could look at how the movie makes people feel to get a better idea of how well it shows childhood fears.

## **Chapter 2**

### **Literature Review**

This chapter looks at some important ways people make cool stylized cartoons. We're talking about how they render, shade, rig, and animate them. I checked out a bunch of studies and how the pros do it to see what tools they use, what problems they run into, and all the new stuff they're trying. It's all about the art and tech that go into making cartoons look awesome, especially short films like *Mistakes in the Mist*.

#### **2.1 Stylized Rendering in Animation**

Stylized rendering in animation is all about putting artistic vibes first, ditching the need to look real. Animators get to show feelings, moods, and crazy ideas in ways that regular realistic animation just can't. Instead of trying to copy the real world perfectly like in photorealistic animation, stylized rendering messes with how things look on purpose to get certain feelings across or make parts of the story pop. This lets animators go wild with shapes, colors, and contrasts, giving things a cool look that makes the story better.

With stylized animation, they often use Non-Photorealistic Rendering (NPR) to mess with lighting, shadows, and textures in ways you can't do if focusing on realism. Cell shading and toon shading are common NPR methods they make flat, bold shapes with little change in color, putting emphasis on what's important. This helps animators draw your eye to certain stuff or folks onscreen and punch up the feels in a scene.

Stylized rendering helps big time in showing what's going on in someone's head or heart. By making reality less real, animators can visually show a character's inner world, like fear, confusion, or excitement, so the audience gets it right away. For example, in *Mistakes in the Mist*, stylized rendering is used to get across how the main character is feeling. Visual cues like the way the water beast moves and the spooky mist show his worries and imagination. Mixing these expressive visuals with symbolic designs makes the story even more emotionally deep, which is great for animated storytelling.

#### **2.2 Shader and Lighting Methods**

Shaders and lighting are super important for how cool and atmospheric animated stuff looks. Shaders decide how light bounces off stuff, letting artists set up materials, textures, and colors. When animation goes for a certain style, shaders ditch real-world lighting to make things more intense or simpler, adding feeling and style. Cel shading is a popular trick. It colors stuff with

flat colors and sharp lines, copying old-school cartoons. Instead of smooth light and shadow, it goes for a bolder, graphic look. Toon shading is close to this and makes highlights and shadows simple for that cartoon feel. Good lighting brings the feels. It's overdone to play up the feels. Strong light can make tension and big up scary moments, while soft light feels warm and safe. Backlighting makes outlines pop, giving characters a striking look. Messing with light and shadow can also stand for what a character's feeling or blur the line between what's real and what's not.

In *Mistakes in the Mist*, cool lighting and shaders show what the main character's going through. Simple visuals become strong ways to tell the story. The dreamy, misty vibe and flowing light mirror the boy's worries, pushing his imagination and inner fight.

### **2.3 Role of Rigging and Animation in Stylized Films**

In stylized animation, how you set up characters and make them move is super important for bringing them to existence. Setting up, or rigging, means giving a character or item a bone structure that animators can use to control it and pose it in a way that feels real. In stylized movies, rigging is key to keeping the crazy movements of characters smooth and expressive, fitting with the look of the movie. Compared to animation that looks real, styling usually calls for more bend and give in rigging. Characters move in bigger, more flowy ways; rigging needs a focus on how they look and move. Like, over-the-top faces and body language are big when showing how someone feels fear, shock, or amazement. The rigging has to let you change and play with these things without messing up the character's style.

Animation in stylized movies goes even further. Animators push the feels in each scene with big movements and anticipation. Actions like squash and stretch where characters get long and flat or squished to show force or feeling come into play. Paired with spacing, this helps the animator crank up what the character feels inside, like a kid's worry or happiness.

In *Mistakes in the Mist*, the way the boy and the water monster were rigged and animated was spot-on for the movie's style. The boy moved smoothly to show he was innocent and exposed, while the monster had exaggerated, flowy moves that stood for his worries and imagination. Together, the rigging and animation were a strong way to show what was happening and what everyone was feeling.

## Chapter 3

### Project Overview

Mistakes in the Mist is a short cartoon about being a kid and dealing with fears and imagination. It's about a 5-year-old boy who meets a weird, watery monster during a storm. This monster pretty much represents all the stuff he's worried about deep down. The short uses cool animation tricks things like special shaders, lighting, and character rigging to make it feel like a dream, where it's hard to tell what's real and what's not. Mistakes in the Mist hits on stuff like being scared, being innocent, and feeling guilty. It wants to make you feel something and uses its look to help tell the story. It just goes to show how animation can really bring feelings to life.

#### 3.1 Project Title and Theme

Mistakes in the Mist is a short cartoon about a 5-year-old boy dealing with the scary stuff kids think about and the way they see things. The title, Mistakes in the Mist, is all about how kids feel inside their problems, how they blame themselves, and why they get mixed up. The mist part is like the fog of imagination and worry that messes with how he sees what's really going on. The cartoon looks cool, kind of like a dream, and it's hard to tell what's real and what's just in the boy's head. The main thing Mistakes in the Mist is trying to show is how tough it is to be a kid and how fears pop up in their heads. When the boy meets the water monster during the storm, it shows how kids make their fears into real things so they can figure out what's freaking them out. The water monster is like a stand-in for his worries and guilt, mostly because he wet the bed. The cartoon shows that kids are innocent, and they mix up what's fake and what's real. The made-up stuff is a big deal in how a kid feels.



Figure 3.1 Official Project title and poster

Also, the cartoon talks about how kids blame themselves. After the boy wets the bed, he says the monster did it. It shows that kids try to find reasons for stuff they don't get. This mix of fake and real shows how feelings can be when you're growing up, with being innocent and feeling bad all at the same time. Facing fears is just part of learning about yourself.

Basically, Mistakes in the Mist is about all the feelings kids have when they grow, from being confused and scared to getting things and taking care of what they do. The way it looks helps show the deep feelings in the story, making it a special look at what kids are afraid of.

### 3.2 Visual Direction and Style

The way Mistakes in the Mist looks is meant to show how the main character feels as he goes through a world made up of his imagination and worries. We looked at cool animated stuff like Arcane and Valorant. The movie uses strong, lively images paired with soft light to make a dreamy, moody setting. The stylized look makes the world feel unreal and full of feels, with over-the-top textures, smooth movement, and lots of colors that show the kid's inside mess and amazement. Mist is a big thing in how the movie looks, both as something you see and as a symbol. The mist stands for the boy's confusion and worry, wrapping scenes in soft, blurry stuff that means the lines are fuzzy between what's real and what he's imagining. This idea with the mist stays the same all through the movie, changing shape and thickness to match what the boy is feeling. When he's super scared, the mist gets thicker, making him feel alone and unsure. When he's thinking quietly or feels calm, it gets lighter, meaning he's figuring things out.



Figure 3.2 Visual concept and pre-render

The lighting is super important in setting the mood and showing how deep the feels go in each scene. In the boy's room, the light is warm and gentle, making him feel safe and cozy. This is different from the darker, intense light during the storm and when he meets the water monster.

The difference between light and dark shows how the boy goes from a safe place to huge fear from his mind. The lighting also brings out the feels in the movie, pointing viewers to important moments of growing up or freaking out.

Basically, the visuals mix simple shapes with expressive textures to get the audience emotionally involved, putting them right into the main character's head and how he feels. The cool look makes sure the movie is not just nice to look at but also really tied to the themes of fear, innocence, and thinking things are your fault.

### **3.3 Story Summary**

Mistakes in the Mist is about a little boy's feelings when a thunderstorm wakes him up. He's 5, and all the noise and lightning scares him. Being both curious and afraid, he gets out of bed to see what's going on. When he looks out the window, he sees a weird water monster coming out of the fog. This creature seems to be made of all his worst fears, like the storm and things he doesn't understand.

The boy's meeting with the monster sends him on a strange trip that mixes make-believe with real life. As the story goes on, the boy decides the monster is to blame for something that happened he wet the bed. When he tries to tell his mom, he says the water monster did it. It's a sad and touching moment that shows how kids mix fantasy and what's real.

The story looks at what it's like to be a kid with fears, using your imagination, and blaming yourself. The water monster stands for how kids often put their worries and problems onto something outside themselves. The film is about learning to take responsibility and deal with your fears. By mixing dreamy scenes with the boy's feelings, the movie encourages viewers to think about how imagination helps kids understand the world. In the end, Mistakes in the Mist is a story about getting older, facing what scares you, and learning who you are.

### **3.4 Objectives of the Film**

Mistakes in the Mist is really about digging into what a little kid feels when he's dealing with fear, innocence, and blaming himself for stuff. The movie tries to show you what's going on inside the main character's head. The way the animation is done brings out those messy, kid feelings, like how they use their imagination to show how worried they are inside. And that monster made of water? It stands for the boy's hidden fears, like those tough feelings kids try to sort out. Also, the movie wants to show how cool art and lighting can be to make you feel things. Things like gentle lighting, mist, and weird textures make things seem dreamy and

mixed up between real life and make-believe. It's not just about looking good. The visuals are there to make you feel something, so you get what the boy is going through.

The film also attempts to get across how everyone is scared when they're kids but they get over it. Mistakes in the Mist reveals how kids use make-believe to deal with hard feelings by showing how the boy handles his. In the end, it wants to show an important sight of growing up and getting to know yourself, telling a story of innocence that leads to figuring things out and being responsible.

### **3.5 Target Audience**

Mistakes in the Mist is made so everyone can enjoy it, no matter how old you are. It hits on feelings that kids and grown-ups can all relate to. Kids will get the main character's worries and feelings, since it shows a kid dealing with what's real and what's in their head something lots of kids go through. Grown-ups might find the movie makes them think. It touches on stuff like feeling guilty, growing as a person, and facing your fears. Adults might remember their own childhoods and get something out of the movie looking at how hard it is to grow up. The movie looks dreamy and strange, which should bring back memories and make people think.

The way the movie looks and the story it tells are made to be easy for anyone to get into. It has a unique look but isn't trying to be real. Young kids can still understand it. But there are also deeper parts of the story that grown-ups can enjoy, making Mistakes in the Mist good for all ages. Basically, if you like animated stories that pull at your heartstrings, especially if you're interested in how kids think and use their imaginations, you'll probably like this movie.

## Chapter 4

### Tools and Software

Mistakes in the Mist was made using a bunch of regular software that helped make the animation style pop. We did most of the 3D stuff like making characters move and building scenes in Autodesk Maya because it's easy to work with. When it was time to render, we picked Arnold Renderer so we could create a cool look with some fancy lighting tricks. To get all those textures looking just right on the characters and backgrounds, we used Substance Painter. Then, we touched up the textures and fixed up some visual stuff in Adobe Photoshop. In the end, we put it all together in Adobe Premiere Pro and synced it with the sound. Basically, these tools were super needed to get the film looking how we wanted, helping us get both the tech and creative bits spot on.

#### 4.1 List of Software Used

To pull off Mistakes in the Mist, we used a bunch of industry-standard software. We picked each tool to handle certain parts of the film, like modeling, texturing, rendering, and the final touches.

- a) **Autodesk Maya:** We used this for rigging, animation, and making 3D models. Maya is super adaptable, letting us build detailed character setups and smooth animations, which were super important for showing how the boy moved and what he was feeling. Building the film's world and objects was done in Maya, too.
- b) **Arnold Renderer:** Arnold was our go-to for rendering because it's great for non-realistic visuals, which was key to getting the movie's cool style. With Arnold, we could tweak the lights, shaders, and materials to get that dreamy vibe the movie is known for
- c) **Substance Painter:** This is what we used for textures and painting materials. It let us make detailed, hand-painted textures for the characters and backgrounds, which really brought the world to life.
- d) **Adobe Photoshop:** Photoshop was a must for cleaning up textures and tweaking assets. We used it to create and fine-tune texture maps and make any image fixes needed to keep things consistent with the movie's look.
- e) **Adobe Premiere Pro:** In the end, we used Premiere Pro for video editing, putting scenes together, and syncing sound. This let us mix the animation with sound effects, music, and voices, so the final movie was smooth and complete.

All these programs were a big part of making the special look and feel of Mistakes in the Mist. Each one helped at different points in making the film.

#### **4.2 Use of Each Tool in Production**

Picking the right software for Mistakes in the Mist was super important to get the look and story across that we wanted. We used each tool at a certain point to help bring the creative ideas to life.

- We used Autodesk Maya a lot when animating. Basically, we used it to make the characters and backgrounds, so it was the base for the 3D stuff in the film. With Maya, we could make bendy skeletons for the kid and the water monster. These skeletons helped us make really cool and lively animations. We wanted the characters to move naturally, but also a bit over-the-top to fit the film's style. When animating in Maya, we tried to show the boy's feelings with simple movements, and the water monster's weird, flowing motions.
- For the film's style we used Arnold Renderer. It has a good lighting system. It gave it a look that helped match the story's dreamy feeling. Arnold was cool for making the lights look soft and exaggerated, and for tuning the shadows to create the emotional mood in different scenes. We really liked that it helped us create the water monster's fluid, glowing look.
- With Substance Painter, we could add detailed textures to the 3D models. This made the surfaces look realistic and hand-painted, which showed the feeling of each scene. We gave the boy's surroundings warm, cozy textures. Then, we contrasted that with the monster's cold, creepy textures.
- We used Adobe Photoshop with other programs to touch up the textures and make changes. It was really useful for making sure the textures looked consistent.
- Then, we used Adobe Premiere Pro at the end to put the animated parts together, add sound, and do the final edits. With Premiere Pro, we could tweak the film's timing to make sure things flowed well.

## Chapter 5

### Production Process

Making Mistakes in the Mist was a step-by-step thing. It started with the story idea and how we wanted it to look. First, we designed the characters and made storyboards to plan the animation style. After settling on the designs, we built the characters and scenery in Autodesk Maya, then rigged them so they could move for animation. Next, we did the texturing in Substance Painter, creating materials by hand to match the scenes' feel. For animation, we focused on the boy's little movements, but also the water monster's big actions, all animated in Maya. After animation, we did lighting and rendering with Arnold Renderer, using special shaders and lighting to get that dreamlike look. Finally, we used Adobe Premiere Pro to put everything together, add sound and music, and finish the film. Doing things this way helped the tech stuff and the creative stuff work together, so the short film looks cool and has feeling.

#### 5.1 Texturing and Material Painting

Textures and materials were super important in making the world of Mistakes in the Mist feel real. They gave the 3D models depth, personality, and made them look cool. First, they made base textures with Substance Painter, where they painted right onto the 3D models. This gave the animators a lot of control, so they could make detailed, hand-painted textures that matched the film's unique, stylized look.

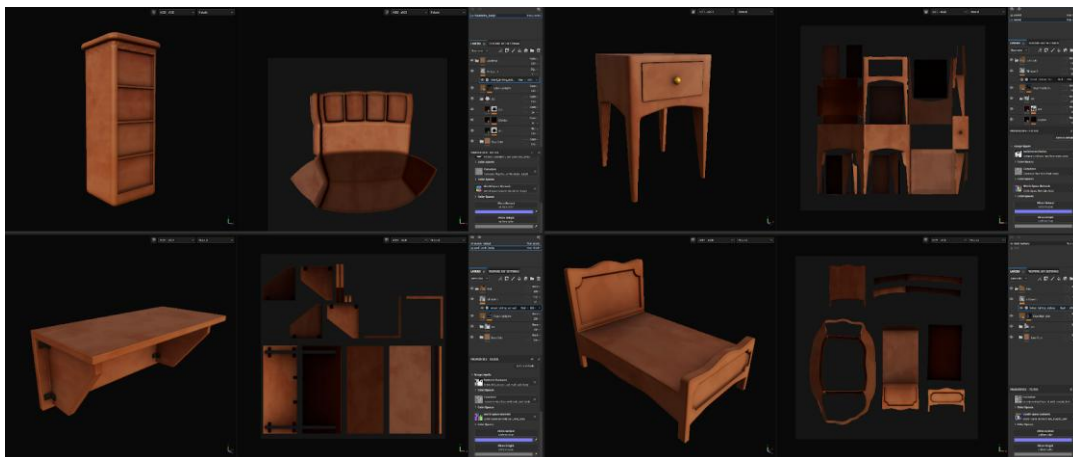


Figure 5.1.1 Assets texture

For the main character's bedroom, they wanted it to feel warm and cozy. So, they carefully designed textures like wood, fabric, and soft materials to make you feel comfy and safe. They used warm, natural colors to paint these materials, which made the room feel inviting. The bed sheets and wooden furniture had soft textures, which helped show that the boy felt secure and familiar in his room – which was very different from the scary stuff outside his window. On

the other hand, the water monster needed fluid, moving textures to show it was supernatural. The monster's body looked shiny and see-through, with smooth color changes and flowing textures to make it look weird and always changing.



Figure 5.1.2 Floor and wall Texture

The team used different brushes and materials in Substance Painter to make the monster look fluid, and they added glowing light to make it seem like it wasn't from this world. The mist around the monster also had a soft, see-through texture, which played up the idea that it's hard to tell what's real and what's in the boy's head. By layering textures, the team made the film look and feel rich, which really added to the surreal vibe. The mix of hand-painted textures and computer-generated details made sure that everything helped tell the story and made the film more emotionally powerful.

## 5.2 Shader Creation for Stylized Look

Making shaders for Mistakes in the Mist was super important to get the movie's special look. We mixed fantasy and feelings using some cool rendering tricks. Our aim was to come up with shaders that not only looked good with the cartoonish style but also added to the movie's story and emotions. We made custom shaders using Arnold Renderer, which let us play with light, color, and texture to create that dreamy, unreal feel. For the water monster, we made a shader to make it look fluid, glowy, and see-through. This shader used a trick called subsurface scattering. This copies how light goes through see-through stuff. It gave the monster's body that glowing, ghostly thing. The shader also had movement that changed, copying how the monster flowed and changed shape. This made it seem real but also not from this world.



Figure 5.2 animation shader and style

The mist in the movie was a big deal, so we needed special shaders for it too. The mist had to look soft, puffy, and kind of clear, so we designed a shader to do just that. By using colors that faded and soft scattering, the mist mixed in well with the background. This backed up the movie's idea of the line between what's real and what's not being fuzzy. It also pointed up the feeling of being scared and mixed up that the main character goes through.

The lighting shaders also did much to boost the cool look. By playing with how things reflected light, the team got those extra bright spots and shadows that went with the style. These shaders let us make things super contrasty, mostly when things got scary or the character realized something. All this boosted the feels in the story.

The custom shaders we came up with for *Mistakes in the Mist* did a lot to help tell the story. They backed up the movie's ideas about childhood fear, imagination, and finding yourself.

### **5.3 Rigging for Animation**

Rigging was super important for *Mistakes in the Mist*. It helped the main character and the water monster move in cool, expressive ways. Basically, rigging is like making a skeleton for the characters so the animators can move them around easily. For this kind of animation, the rigs need to let the characters move in crazy, bendy ways but still show what they're feeling. We wanted the characters' movements to match the movie's feelings, from the boy's innocence to the monster's weird, watery movements. For the kid, we made a simple rig that still let him move around a lot. We thought about his small movements and gestures. The rig let his body move naturally, like how he stands and moves his hands. Since he was supposed to look innocent, curious, and kind of fragile, the rig let him move smoothly and easily. This really

helped the animators make him move in a way that showed his feelings, especially when he was interacting with stuff around him.

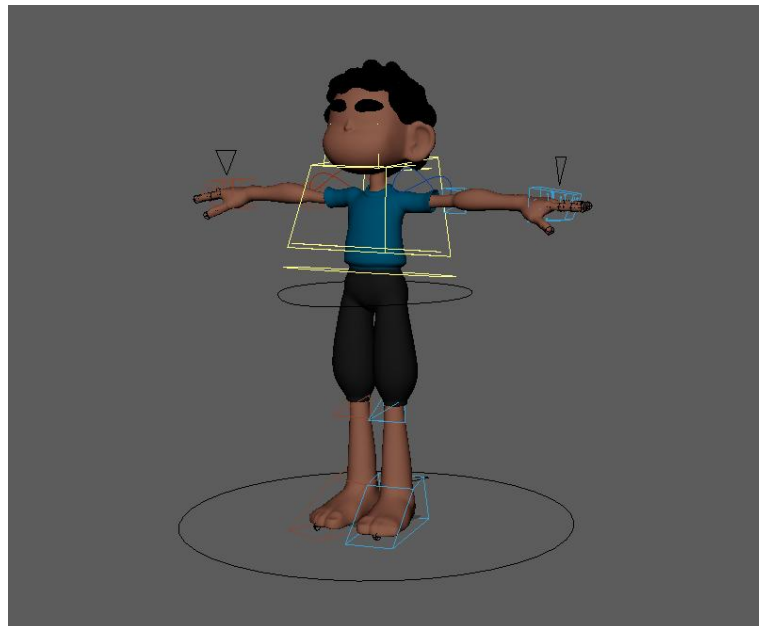


Figure 5.3.1 Boy character rig

But the water monster was different. It needed a way more complicated rig to handle its flowing, always-changing shape. This rig had tons of control points, so the animators could stretch and squash the monster's body to make it flow like water.

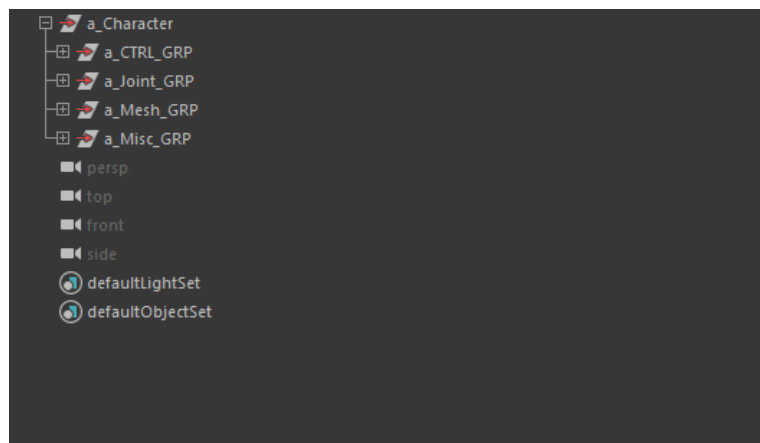


Figure 5.3.2 Maya outliner

The hard part was making the monster move in a way that showed what it was feeling but still fit the movie's style, especially when things got intense. The monster's rig let it make wild gestures that showed how weird it was, making it look both scary and like something out of a fairy tale.

By using a simple rig for the boy and a crazy, flowing rig for the monster, we made sure the characters moved in a way that made sense for the movie's look and feel. Rigging was key to making the movie look the way it does and hitting the right emotional notes.

## 5.4 Animation and Motion Style

The way Mistakes in the Mist was animated was super important for showing the feels and telling the story. The animation style matched the movie's vibe, showing both how innocent kids are and the crazy stuff in the boy's head. The goal was to make movements that looked good and made you feel something, so you could really get into what the main character was going through. The animation made the little boy seem sweet and natural, like a normal kid. When he turned his head or walked to the window, the soft, smooth movements showed how fragile he was.



Figure 5.4.1 Character motion style

They wanted to keep his movements mellow because he was going through a lot of feelings as he learned things, got scared, and stayed innocent. Basic animation stuff like anticipation was used to make his actions seem real. For example, when the boy saw the storm or the monster, his movements were slow.



Figure 5.4.2 Character animation and motion style

But the water monster needed animation that was wild and flowing. Since the monster was like the boy's worst nightmare come to life, its movements had to be over-the-top. The monster's stretchy and squishy movements were animated to make it scary yet interesting. It was designed to move like something in a dream, changing shape in weird ways to show how unreal and scary it was.



Figure 5.4.3 Character animation and emotion setup

Mixing realistic movements for the boy with exaggerated movements for the monster, got across the emotional differences in the movie. All the animation choices backed up the main ideas of fear, innocence, and imagination, making viewers really feel for the story.

## 5.5 Lighting Setup and Scene Design

The way they lit and designed the scenes in Mistakes in the Mist was super important for setting the mood and making it look cool. How they lit things really showed what the movie was about, from the nice, safe feeling in the kid's room to the scary tension during the storm and when the water monster showed up.

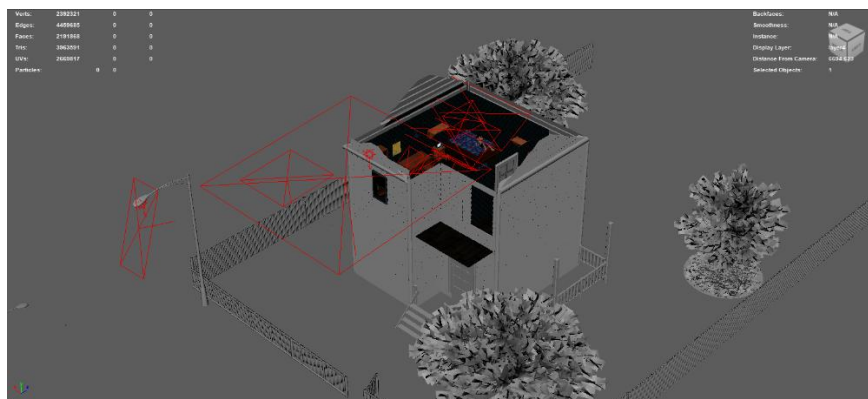


Figure 5.5.1 Scene design and light setup

They paid attention to how each scene was lit to match what the boy was feeling, which really drove home how the story went from comfy to scary to aha! In the kid's room, the lighting was all about feeling warm and snug. Soft light made it feel safe. The light from the bedside lamp and through the curtains made you think of comfort, showing how innocent the boy was and how familiar he was with his surroundings. The colors were warm, like yellows and oranges, adding to that safe feeling.

But as the story goes on and the boy faces his fears, the lighting gets intense. When the storm picks up, they used dark shadows and bright light to show how scared the boy was getting. The

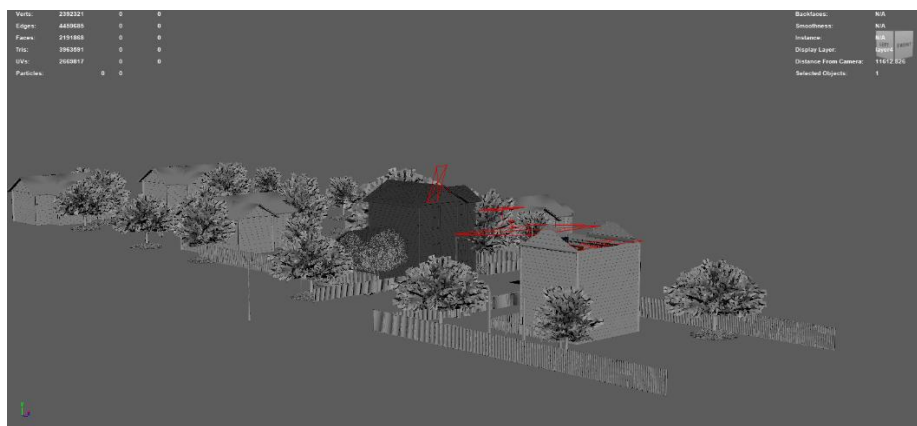


Figure 5.5.2 Environment light setup

stormy light outside his window was cold and blue, which was very different from the warm light inside. It made things feel tense, like the boy's safe room was one thing and the scary world outside was another. How they set up the scenes also helped tell the story.

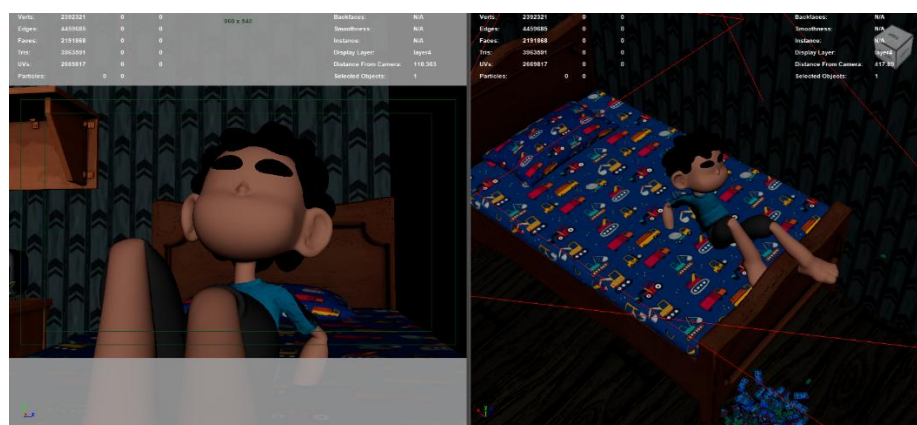


Figure 5.5.3 Character lighting setup

The mist, which was a big part of how the movie looked, didn't just make things feel strange; it showed how confused and afraid the boy was. Soft light shined on the mist, which made it blend in with everything else, so it was hard to tell what was real and what wasn't. This messed with the line between what was real and what he imagined, which made the movie's points about imagination and figuring yourself out even stronger.

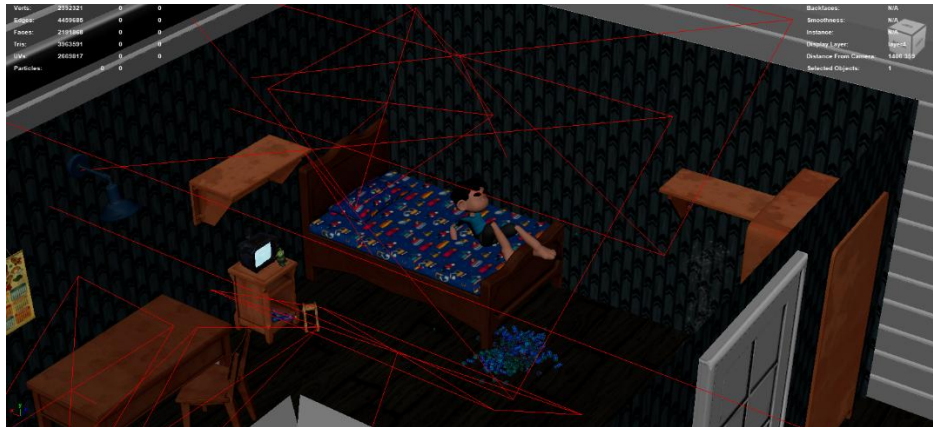


Figure 5.5.4 Indoor lighting setup

All in all, the careful lighting and scene design made this movie super immersive and emotional. It pulled you right into the boy's world of fear, innocence, and imagination, and it helped guide the story visually and made it more powerful.

## 5.6 Stylized Rendering and Final Output

Getting the final look right for *Mistakes in the Mist* was super important for giving the film its special style – a mix of weird fantasy stuff and real feelings. The team used Arnold Renderer, a great tool for making things look non-realistic, to pull this off. This helped them keep a good mix between art and tech, so the movie felt like a dream but still made sense.

The main goal was to use this stylized look to show how the main guy was feeling and what he was going through inside. They used soft light to make the mist and water monster scenes feel dreamy, almost like a painting. These parts had light that changed slowly and glow stuff to make them seem fluid and out of this world, fitting with the boy's fears. The monster glowed and looked kind of see-through, which made it seem magical and showed off the boy's imagination. All these visual choices helped the audience get a sense of childhood fear mixed with wonder.

The way things looked was made to go with the style of the whole film. The team hand-painted textures to be sure the stuff in the boy's room and outside matched the movie's artistic vibe. Textures were made a little over the top, with soft changes in color and extra details to make the world feel more fantastical.

After rendering the scenes with Arnold Renderer, they used Adobe Premiere Pro to put all the shots together, sync up the sound, and tweak the timing. That to make sure the film's emotional moments hit hard. The end result was a movie that looked cool and felt real, blending art and tech to tell a story that was both interesting and creative.

## Chapter 6

### Challenges and Solutions

Making *Mistakes in the Mist* wasn't easy. We had trouble getting the cool stylized look we wanted and keeping the visuals consistent and emotionally moving. One big thing was trying to find a middle ground between being artistic and being technically correct, like when we were rendering the mist and water monster – those were kind of weird. We fixed this by tweaking the Arnold Renderer to get that dreamy vibe without messing up the story. It was also hard to animate the boy so his movements seemed real and natural. We made the rigging in Maya really flexible, which helped us show how innocent and fragile he was. And the sound! Getting the sound right with those stylized visuals was super important for the film's feel. We worked closely with the sound folks to make sure the sound went well with what you saw, without being too much during the quiet, emotional parts. We were able to deal with the tech and creative problems, so you could really get into the movie.

#### 6.1 Achieving the Stylized Look

Getting the exact style we wanted for *Mistakes in the Mist* was a big challenge. With animation that has a distinct style, you kind of move away from things looking real, so the animators can get wild and come up with cool visuals that really amp up the feels in the story. For this movie, we tried to find the sweet spot where the visuals were creative, but the story was still easy to follow, and the audience still felt something. One of the main things we did to get that stylized look was something called non-photorealistic rendering (NPR). We used Arnold Renderer to make the movie feel like a dream you can step into. The team tested everything a bunch and tweaked the settings to really bump up how light and shadow played together, making everything glow softly and adding to the movie's strange vibe. The mist itself which is a big thing in the movie was rendered with soft color changes and light that spread out a bit, making things feel unclear and blurring the lines between what's real and what's not. This let us show the boy's fears and confusion in a visual way, while keeping the style consistent. Also, the way things looked on the surface was super important for making the style pop. The team hand-painted textures using Substance Painter to make bold, over-the-top surfaces that made the movie feel fun and weird. These textures were made to feel like you could touch them, and they were very expressive, with each character and object having its own look. Like, the boy's bedroom had soft, cozy textures, while the water monster's textures were smooth and glowing, making it clear it wasn't from this world.

Lastly, the way we set up the lighting was key to making the stylized look work. We messed with the lighting to get some strong differences between light and dark, which made the emotional parts feel bigger while keeping that dreamy feel. Getting the lighting, shading, and textures just right made for a film that really grabs your eye and shows the main character's feelings and how wild a kid's imagination can be.

## **6.2 Animation and Fluid Movement**

In *Mistakes in the Mist*, the animation and how things moved were super important for showing how the story felt. Because the movie had its own unique style, the way things were animated needed to show how innocent and easily scared the little boy was, plus how weird and flowy the water monster was. How both of them moved helped tell the story, touching on stuff like fear, imagination, and finding yourself. The boy was animated in a simple, real way. His movements were like a kid's – curious, unsure, and amazed. He didn't move too much, but you could still see that he was a kid who didn't know much and could get hurt easily. Instead of big movements, he had small, real ones that showed what he was feeling inside. So, whether he was going toward the window or backing away because he was scared, his movements helped you feel what he was feeling and made you understand why he was afraid.

On the other hand, the water monster moved in a crazy, flowy way to show that it wasn't from this world. It was tricky to make it move in a way that was both active and creepy, sort of like how the boy was scared without even realizing it. The monster's body could stretch and squish, and it moved in a smooth, wave-like way to give a dreamy, nightmarish feeling.

All in all, the boy's simple movements and the monster's wild, flowy ones made the movie more emotional and meaningful, balancing innocence and fear. The animation made sure that how both characters moved fit the story, making the feelings even bigger.

## **6.3 Sound Design and Atmosphere**

The sound really made *Mistakes in the Mist* better. It made the movie feel more real and helped you feel what the characters were feeling. Since the story was kind of weird and dreamlike, the sound went along with the cool pictures and the way the feelings changed in the movie. The aim was to pull you in, make you feel the stress when the boy meets the water monster, and make the quiet, sad times feel even deeper.

Storm sounds, like thunder and rain, really set the scene. They put these sounds together to make the world feel real and wild. The thunder especially made things feel scary, just like how

the boy was feeling. The storm outside his window was like the sound of his own worries, making the scary parts with the mist and monster even more intense.

For the water monster, the sound had to show that it was like a liquid ghost. They added quiet water noises, like something sloshing or dripping, to make it feel spooky. These sounds mixed with quiet wind and other noises to make you feel like anything could happen.

When things got quiet, like when the boy was with his mom, the sound got softer to make you feel safe. The background noise went down, and they used gentle sounds to make the bedroom feel warm.

Basically, the sound in *Mistakes in the Mist* worked with the pictures to pull you in and show you how the main character was feeling inside.

#### **6.4 Rendering Efficiency**

Making *Mistakes in the Mist* look great was a big deal, so rendering it right was super important. The movie has this cool, unique style, needing detailed textures, moving lights, and tricky shaders. Because of all this, rendering took ages and was hard to pull off. The team had to figure out how to get that dreamy look without waiting forever for each scene to render.

One worry was how long it took to render those dreamlike shots. They used Arnold Renderer because it's great for cool stylized effects and handing soft light and crazy shadows. But, the monster and mist scenes were so detailed that they took forever to render. To fix this, they tweaked the rendering setup, played with sampling, and used render layers. This helped them render those complex scenes faster without messing up the overall quality

Also, they used render farms to make things quicker. These farms split the rendering work over many computers, which cut down the time a lot. This way, the team hit their deadlines and kept the visuals looking awesome.

Another trick was to only fix what needed fixing. Some scenes didn't need much lighting or textures, so they rendered those with lower settings. This freed up power for the tougher shots. By being smart about the settings, the team balanced quality and speed, making sure the movie looked how they wanted it to, and on time.

## Chapter 7

### Conclusion and Recommendations

So, *Mistakes in the Mist* mixes cool animation with a touching story, really showing those childhood worries and dreams. It proves that mixing creativity with tech know-how is key. Going forward, things like real-time rendering, VR/AR stuff, and maybe even AI could speed up making these animations. Better sound and teamwork could also make animated stories feel deeper and more real. This could lead to some seriously cool and fresh animation in the future.

#### 7.1 Conclusion

*Mistakes in the Mist* really nails it with its cool animation style, getting across those tricky feelings and thoughts kids have, like fear, imagination, and knowing yourself. The film makes things look unreal and dreamlike using special effects that aren't trying to look real, plus cool lighting and over-the-top animation. This not only helps tell the story but also gets the audience really feeling it. The look of the movie, with its gentle lighting, smooth moves, and meaningful textures, really puts you in the boy's head as he deals with his problems, keeping things grounded but still magical.

One of the best things about the movie is how it turns deep emotions into things you can see. The people who made the movie used cool effects and special shading to make a world where light, texture, and movement all show what the main character is going through. The sound design and things like the thunderstorm and water monster add to the feeling, pulling you into the story and making you care about what happens.

Sure, there were hard parts, like making the effects look good without taking forever to render, but the team came up with smart ways to deal with it, like tweaking the render settings and using render farms. They got the movie done on time and didn't have to make the visuals look worse. The finished film really gets its point across, looking at childhood innocence, fear, and finding yourself in a touching way.

Basically, *Mistakes in the Mist* shows just how good animation can be for telling emotional stories. The tricks they used in the movie give you good ideas about how to use creative animation to get across tricky ideas while keeping things looking cool and artistic.

#### 7.2 Recommendations for Future Work

To boost future animated projects with similar styles, here are some ideas to improve the creative work and how fast things get done. First, think about using real-time rendering stuff

like Unreal Engine or Unity. They render faster and let you play around with lights, shadows, and textures right away. This gives animators more freedom to test things out and make quick changes to how things look and move.

Also, mess around with adding interactive pieces like Virtual Reality (VR) or Augmented Reality (AR). Since 'Mistakes in the Mist' is all about feelings and imagination, these technologies can help viewers jump into the main character's world, making them feel more involved. VR and AR can show the fuzzy line between what's real and what's not better than regular animation, adding a cool twist to the story.

Plus, see how AI-powered animation helpers can make movements smoother and more real. These tools can speed up animation by guessing how things will move and cleaning up gestures. This cuts down on the time spent doing animation by hand and makes everything flow better.

Last thing, crank up the sound by using binaural or spatial audio to pull people in, really in VR or AR versions. This makes the sound feel like it's all around you, matching the fancy visuals. Using these tips, future stylized animation projects can be faster to make, get viewers hooked, and tell stories in cool ways.

### **7.3 Final Reflections**

So, Mistakes in the Mist is a winner! It shows everyone how cool animation can be for telling deep, emotional stories. It mixes art and feels, grabbing people's attention with its looks and feels. The way they used cool visuals, light, and animation makes a special world where dreams and real life meet, showing what's going on inside the main character.

The project also proves that good tech skills help bring art to life. They had some problems making things run smoothly and look good, but the team found smart ways to fix them, making everything flow together. The movie looks great and tells a touching story about being a kid, being scared, being innocent, and finding yourself.

What we've learned here can help make even better animated stuff that really gets to people. Using new tech and maybe even some AI could make animation even more amazing and bring viewers into the story even more. All in all, Mistakes in the Mist is a great start for making more awesome, emotional animated stories.

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