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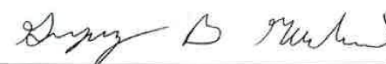
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Finding Personality in Animation
by
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The Bert C. Bach Fine & Performing Arts Scholars program
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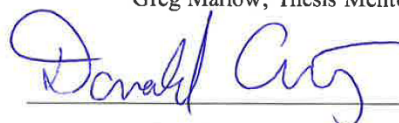
April 28, 2021



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Abstract

There is a difference between making something move and bringing something to life in animation. The animation principles work together to bring out character that is only visible with memorable movement. Given how the entertainment space has changed and grown over recent years, it is arguably vital for characters to be unforgettable for franchises to survive. This creative thesis explores how personalities are interpreted in animation by viewers and creators, and a workflow to bring the personalities to the forefront in the piece. Three distinct characters will be animated with the same set of animations to showcase how a personality can shine.

Base test showcase: <https://vimeo.com/543016682/6b75fb1266>

Victor showcase: <https://vimeo.com/543016321/6d15db2d5f>

Penelope showcase: <https://vimeo.com/543016488/ce117d5f0e>

Reptilian showcase: <https://vimeo.com/543016598/baa2014c22>

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Introduction

Ever since I was a child, I have had a love for video games. All the diverse characters across the medium have stood out to me over the years and how each have their animation nuances that showcase who they are as an individual. Characters such as the energetic Mario and easily frightened Luigi from *Super Mario Bros.* have stood the test of time and remain memorable due to how drastically different they can act during the same circumstances. This idea of difference in their personality is pushed further with how they move, walk, and attack, showing how animation can change how a character is perceived in games.

It is becoming more common to make unique animation sets for characters to help define them, especially in games. The game *Overwatch*, created by Blizzard Entertainment, has taken the concept of elevating a character through movement by making each character's similar animation different. The characters in these titles have different animations highlighting how proficient a character is in handling their weapon to how inviting they are by how they wave their hand to say hello in-game. Some games tend to have just functional animation, not providing insight to who the character is, thus making *Overwatch* stand out in its inspiring animation approach.

An animator's goal is not simply to make a character move, but to bring them to life. This research paper details my workflow and learning experience with animating for personality. Included throughout are breakdowns of my thought process with my decision making for my pieces on my three main characters: Victor, Penelope, and the Reptilian. The creative thesis showcases these characters with a different locomotion, idle, and attack to show the differences in their personality.

Defining Personality and Principles

In almost all entertainment works of art, the characters are arguably the most important, so they must have defining personalities. Personality is a complicated topic, but for this thesis it can be defined as a consistent set of unique traits that determine how one will act in scenarios. While every human might share the same trait of wanting to belong, not all are extroverted or love mowing the lawn. This means that personality is not a rigid concept, and these distinctive traits are important to help predict an action someone would take. Applying this idea to animation, an honorable knight who stays stationary and concentrated in their idle will likely walk slowly with pride due to the suggested confidence and care for their position and personality traits that came from the idle.

For animation, showcasing personality is fundamental as it makes a piece more appealing. A walk cycle can be made more appealing by simply implementing personality traits. Whether it is making the character confident, sad, or angry, it helps a rather simple action become more interesting to an audience. This is important as an animator wants their characters to feel alive, and characters should express real emotions and give insight to who they are as an individual. Ultimately, appeal is how you differentiate a good character from a great one.

For my thesis, there were three main aspects that were tweaked in my animations that helped me drive a character's personality and make them more appealing: posing, timing, and overlapping action and follow through. These principles help insinuate a personality in different ways and were at large the traits I tweaked the most in my animations. To achieve the results I

wanted for my thesis, I had to understand, define, and effectively utilize these principals to better showcase the personality of a character.

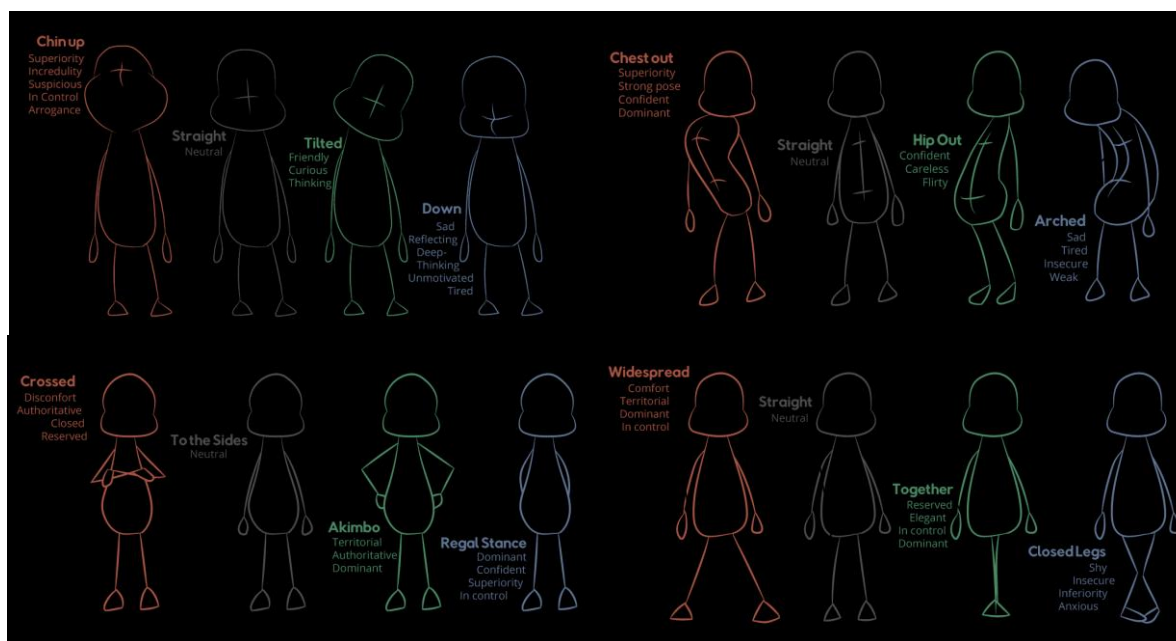
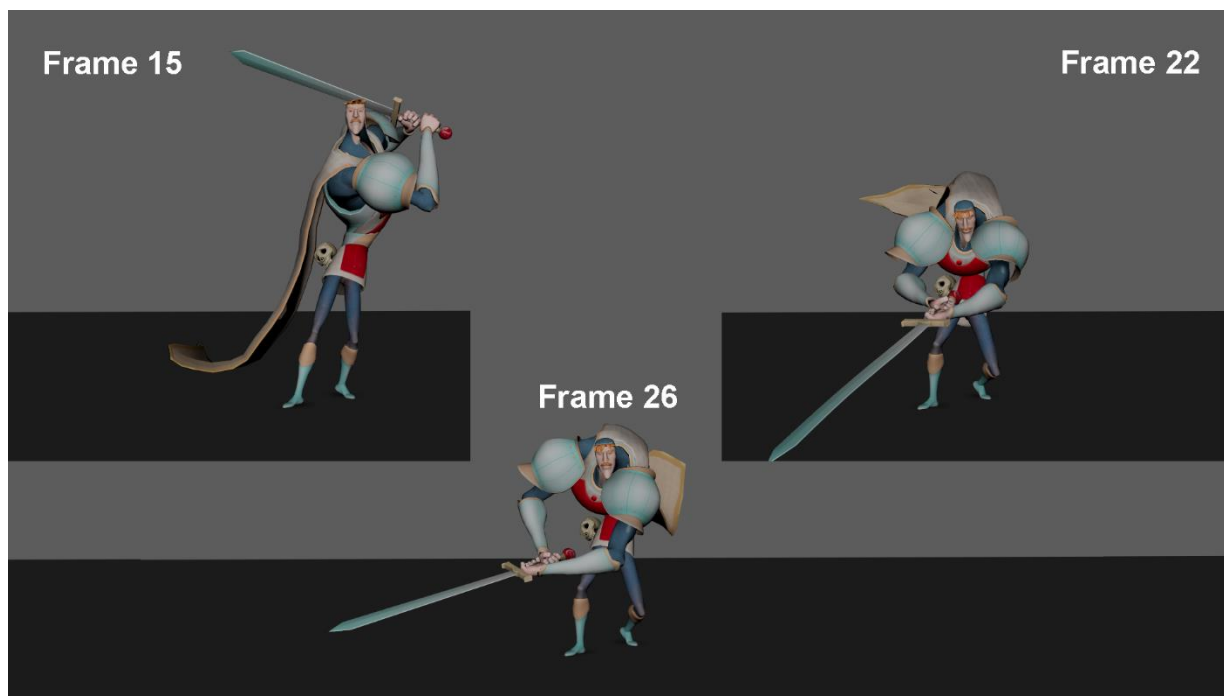


Figure 1

Posing is arguably the most fundamental aspect of animation. Without seeing things like model textures or surrounding environment pieces, a viewer should be able to insinuate some details about a character with a quick glance. Posing gives insight to the personality of a character, suggesting how a character feels, what their intentions might be, and much more. Is your character upset or angry? Is your character anticipating an attack or just clueless? Is your character in control or do they feel lost? Utilizing body language while posing is key to showcasing these personality traits to an audience.

Figure 1 by 2D Animation 101 perfectly demonstrates some of the personality traits that are suggested with how a body is posed. As we see others in our day-to-day life, we see patterns. People who are sad typically have an arched chest, while people who are confident have their

chest popped out. Keeping in mind the line of action and clear silhouettes, the more these body language cues are exaggerated and combined, such as having both your chest out far forward and feet spread wide apart to show confidence, the clearer the personality becomes. These body language hints are what appealing, convincing, and interesting poses are built upon.



The second animation principal I utilized in my pieces was timing. Timing in animation can be used to help illustrate concepts such as physics and emotion. For instance, if a character is using a large metal sword, then it will probably take more time for someone to complete a swing with it due to its heaviness, so the animation should be longer. On the contrary, if a character is using a wooden sword, then the swing would likely be quick, showing how light the sword is by the action taking less frames to complete.

Personality can shine in animation when timing is manipulated. How fast a character goes from pose to pose can suggest different characteristics without having to change the animation. In the case of an idle animation, a character who looks around quickly suggests they are very

energetic, while if it is slowed down, it could show that they are always on edge and cautious. It is the simple change of speed of any animation that can showcase various personality traits, whether it is nervousness, disgust, joy, pain, and many more.



The third and final principal that helped demonstrate personality in my thesis was overlapping action and follow through. Overlapping action and follow through is when body parts or items such as clothes follow behind and settle after a main action completes. For example, when a human walks, the upper arm leads the swing going forward and backward, but the elbow drags behind the form while the hand drags behind the elbow. In that example, overlapping action is the timing between the dragging of the elbow to the forearm in a walk. Follow through is how things will keep moving after the main action stops, so it is the how the elbow swings for a bit even though the forearm has already stopped moving at the end of a walk.

Changing how much something overlaps and then follows through without changing the overall timing in animation can be used to make things heavier or lighter, but it can also suggest

different things when it comes to personality. With the same sword swing example before, if the character swung and barely overshot when finishing the strike, it could indicate the character is a skilled swordsman. On the other hand, if the character swings and then starts spinning in a circle due to overshooting heavily, it could indicate the character barely has any experience with the blade. While the principal focuses on making an action more realistic and appealing, how it overlaps and follows through can give more insight to a character.

Process Breakdown

When animating to bring out personality, it is crucial to have a process to determine and fully understand a character. This process was developed by watching other animators breakdown videos and conference talks about their development process, picking and choosing aspects that I saw that could help me animate better. Before breaking down my process, it is important to mention why character personality is important to consider in film and games. In films, the characters are what make the story. The characters are the reason the film exists, and they need to be able developed fully to be appealing to an audience. This is why films are planned out start to finish before any animation is done to make sure the character is always on brand. Without understanding who they are and how the character would genuinely respond in any circumstance, then the film and its story will not come together fully.

When it comes to game animation, gameplay is the most important, so adding personality should be additive and not distract. If the animation is starting to distract, such as making an attack take way too long to have a character sheath a sword in a cool, personal way, then it is hindering the game and hurting the player experience. Games like Overwatch excel in this

balance of personality and gameplay, having each part being animated feel like it is suitable for that character without feeling intrusive. Whether it is the steady breaths of the sniper Hanzo in his idle, or the heavy swings of the bulky Reinhardt, it only serves the purpose of elevating gameplay as visual flair.

Red Dead Redemption 2 by Rockstar Games is an example of a game with great animation that hinders the player experience. In this game, almost every action has a corresponding animation. For instance, if the player wants to collect an item, the main character will physically open a drawer if there is one, pick up the item, then place it into his bag. While the animation system in *Red Dead Redemption 2* helps make the experience more immersive, it cannot be denied it has harmful consequences on player experience. If a player has to watch a string of animations every time they loot, it makes the gameplay feel drawn out and sluggish. This is why most games favor simple animations for frequent tasks so the art doesn't get in the way. Gameplay animation has to keep in mind this balance between function and flair.



My process for determining a personality starts at looking at the character model and thinking of things that character might do. I then take the rigs into a 3D space and do some quick blocking of poses I think the character would have for certain personalities, which in doing so help me think of and eliminate more. For Penelope, I naturally saw her as an inviting character, so I started playing with the idea of having her shy and innocent until I settled on the confident femme fatale-like personality. At this point, I start to think of how the character would react to different scenarios, what their other animations might look and try to understand the character I am thinking of and working with.



Once I have gone through and decided on the character's personality, I then get inspired. As with any piece of art, being inspired helps a lot with creativity. I go consume content and find other animations, movies, etc. that have a similar feel to what I am trying to get across with my piece. For Victor, I was going for a stuck-up knight, so I started studying the body language of Queen's guards and Tenzin from *The Legend of Korra* as I remembered both as stern. I started to

notice in each that they shared body language cues, how they keep their chest and head tilted up, showing authority.

After gathering all the inspirations, I start to compile a type of style guide that illustrates the character standards I am going for. Similar to how brand standards work, I start to set consistent traits throughout the animations and what to avoid in this phase. This is important to have so each person working with the character understands them. Without setting these standards, if two people are animating the same robot, one might animate them to be a killing machine while the other portrayed them as a professional bartender. Since Victor was set to be an honorable, egotistical knight, I made sure that everything he did had his chest puffed out and head held high in his posing to give body language hints about his personality traits.



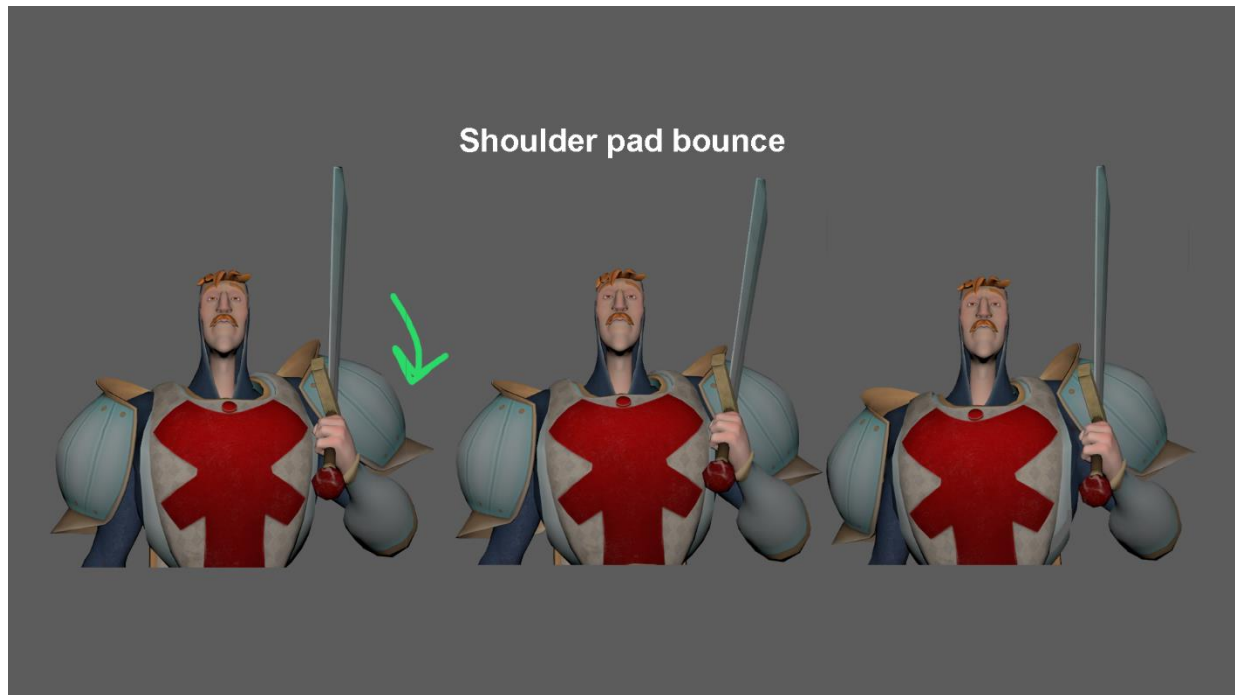
After establishing the style guide, I start recording reference. Recording reference is great for understanding how the body moves when recording the action, but it can also be used to indicate personality showcase moments. Whenever I record reference, I not only perform the

action, but I do the action the way the character might do it – doing multiple takes so I get into character more with each take. If I cannot perform the action up to par, then I find reference that fits with the style guide, so for Victor, I found reference of soldiers marching for his walk cycle. Reference is a great resource and should be utilized not just for body mechanics, but also for performance.



Once the reference is compiled, I bring it into Maya and start blocking out the animation. The focus in this phase is finding the key poses which are the poses that define the action. After blocking them out, I then try to think of ways to implement character moments in the poses. If the character is sad, I might have the character exaggeratingly droop over with their arms dragging on the floor while wearing a frown on their face to push body language hints. While doing all this, I am ensuring that there is a strong line of action and silhouette. To ensure this, I turn off the lights in Maya and look at the posing as silhouettes to ensure the story is being told

clearly. The blocking needs to be solid so not only the character's personality is clear, but also the action.

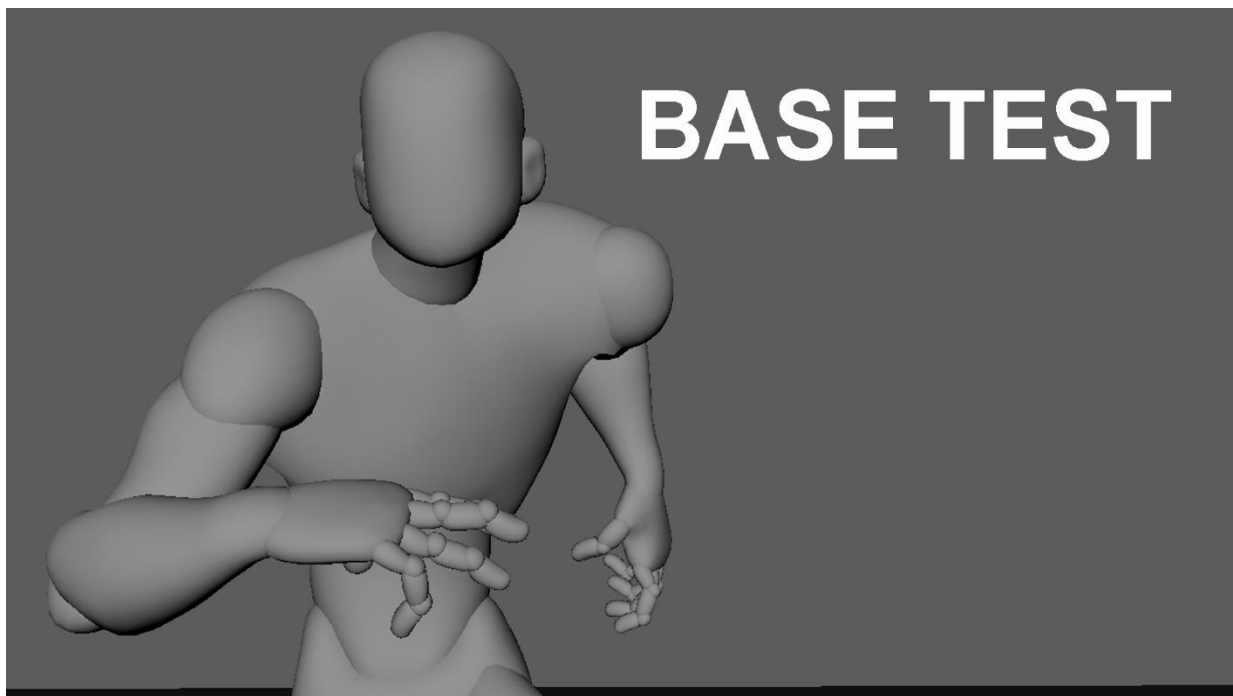


Once the blocking is done, I start to spline and polish to keep adding things to make the shot more convincing. During this time, I am constantly tweaking the overlapping action, follow through, timing, and more in the animation according to the character standards, so actions should visually feel like they belong to the character. One of the key things I spend a lot of time doing in this phase is animating any secondary action I can to make the whole piece more appealing. For Victor, I spent time animating the heavy shoulders pads in the walk to help breathe more personality in the walk. These traits make a performance more convincing and help tie the character's personality together. While it might not be noticed if the little details are there in an animation, it is noticed when they are not.

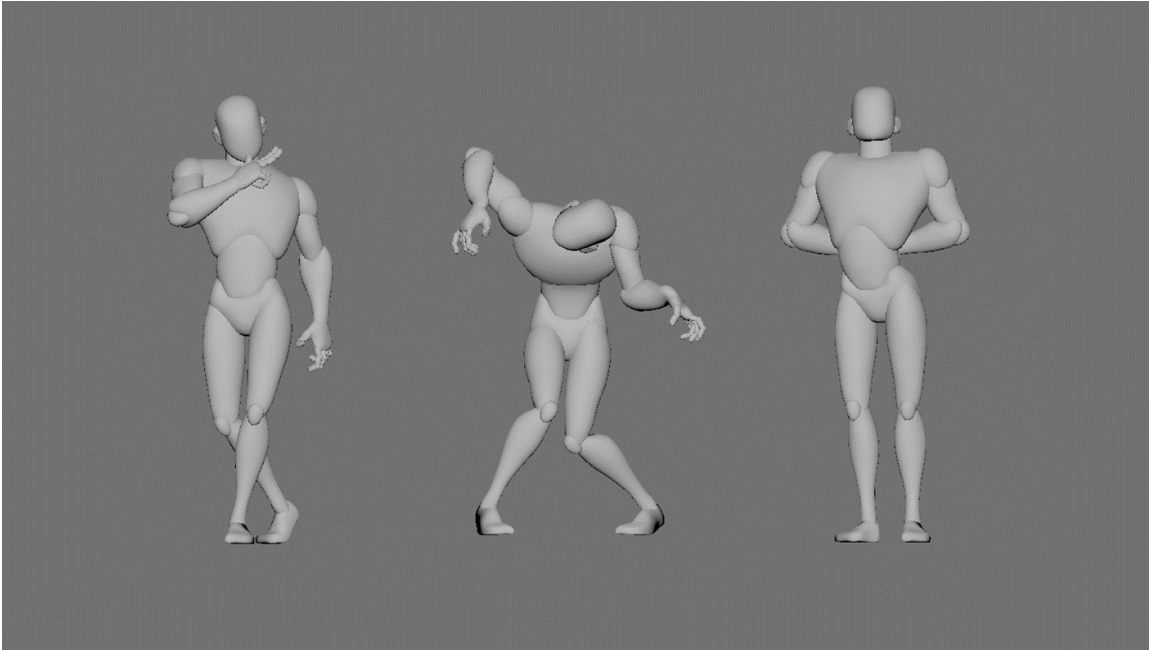
It is vital to get feedback at all the steps of this process to ensure the personality and animation is a success. While you know these characters in and out, others may not. Asking for

others to tell you what is happening in a scene can be a great way to see if your intent is getting across. If not, figure out what is not working. It could be anything from the blocking, timing, weight, or countless other things. Great animation pieces go through revisions and every piece of the process leading up to the final piece should be cared for and reevaluated multiple times.

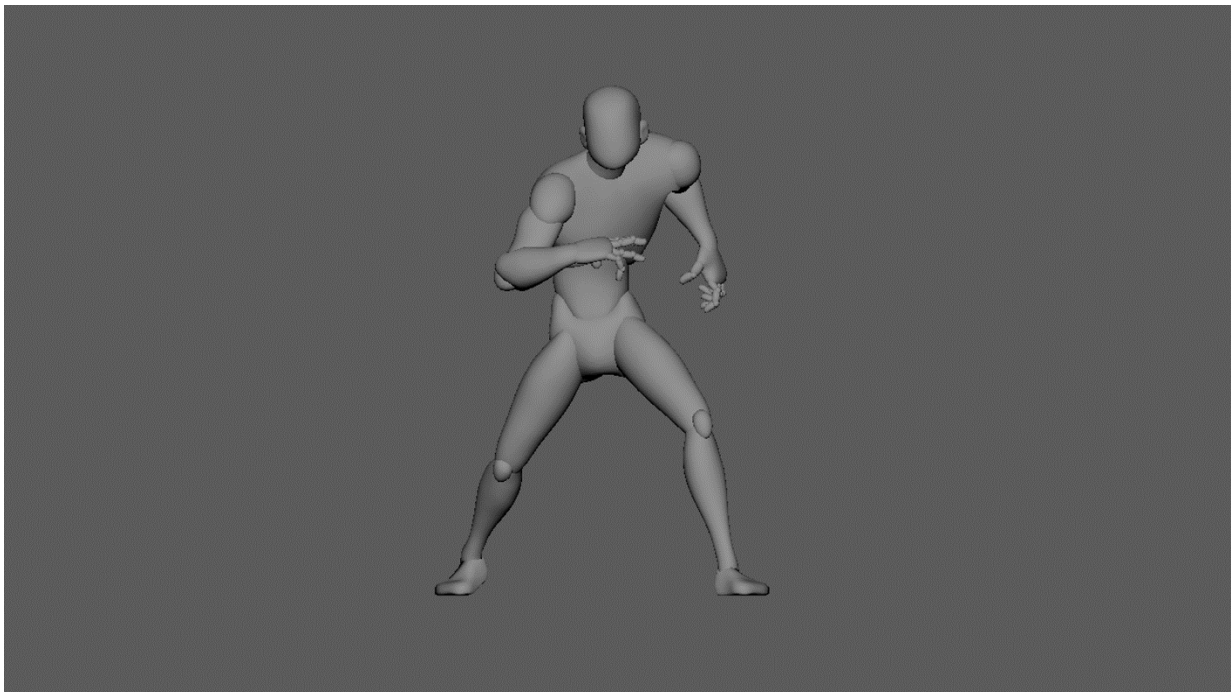
Base Test



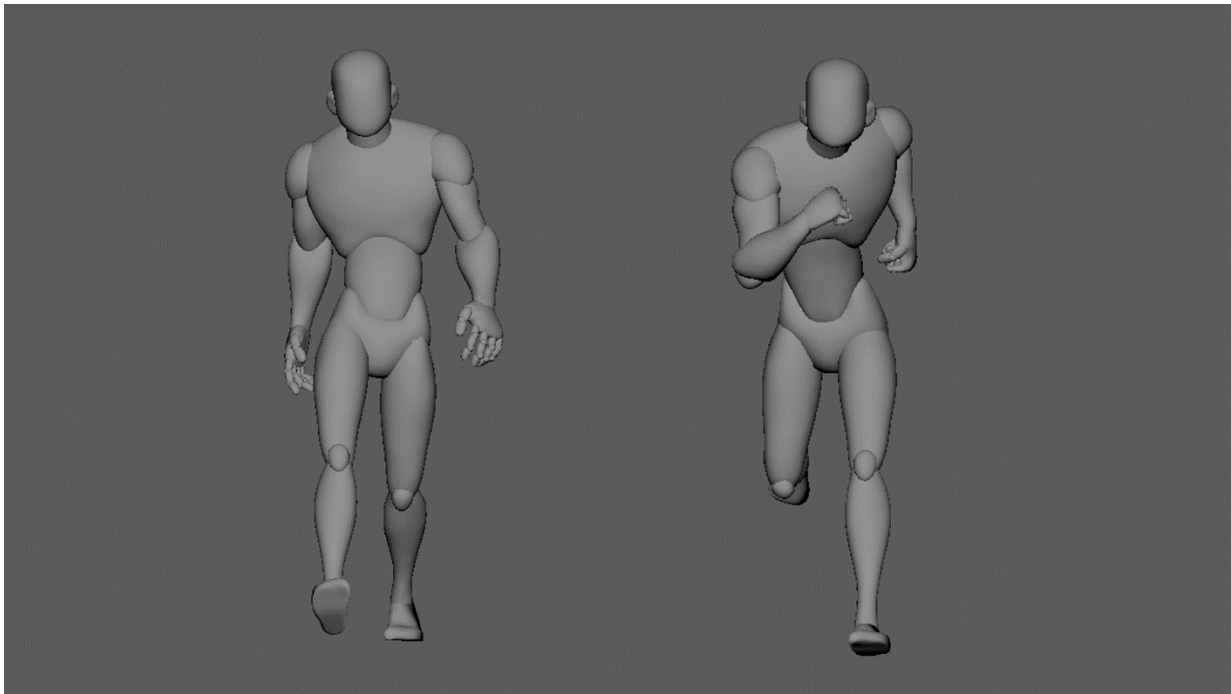
The reason I wanted to do this thesis project and evaluate my process was I wanted to get a better understanding of how-to bring characters to life. An issue you can see with student reels is they might have great mechanics in their pieces, but the animation does not give insight to who the character is. Before starting on the main characters for my creative thesis, I started with a base set to test my process on and help illustrate how the process is important for even basic characters.



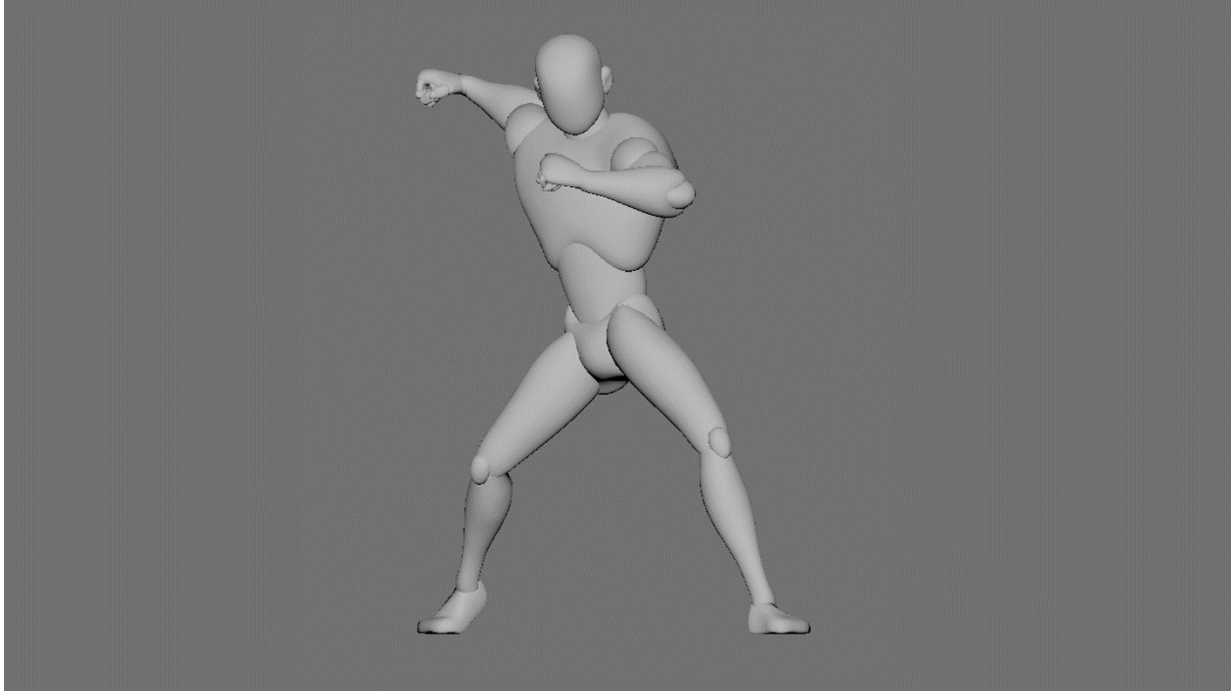
Since a mannequin does not have any notable textures or design features to insinuate any idea who the character might be, I blocked out a variety of poses that gave some idea to who the mannequin was. After some feedback, the pose I ended up setting on was a fighting stance that suggested that the mannequin was happy to fight.



Being inspired by games like *Street Fighter* and MMA fighters, I wanted to keep him loose and bouncy. The main personality trait that I focused on for the base test was overall bounciness. The bounce and looseness in the set is cartoony in nature, helping the character stand out as energetic. The head bob was done to show his laid-back nature, like when one might be enjoying music and lost in their thoughts. The idle showcases this best, seeing as he bobs back and forth from left to right. This ideology is what the rest of the animations were based on.



I kept the personality traits consistent in the movement cycles, so the set felt like it belonged to the same character. To contain the same bouncy nature the idle has in the walk and run, the chest on the up pose is exaggerated. Outside of keeping the head bounce as well, the body language in the posing is kept consistent. The arms are kept wide out, with the chest and head leading in all the animations, indicating the character goes headfirst into whatever he finds himself in. Without this consistency across the board, one might be able to showcase a character's personality off in just one animation, but not across a whole set of animations.



Unfortunately, due to time constraints, the attack for the mannequin did not receive the level of polish as the other animations. However, it still contained the same body language cues with wide poses with the chest and head leading out, showing eagerness and willingness to fight. This animation shows the difference of how much a personality can shine if it has the time allotted to it as can be seen in the other pieces.

This base test shows thoughtfulness for personality can make a generic model stand out. I decided to take this knowledge and animate three distinct characters differently with the same set of animations: a locomotion, idle, and attack. I compiled a list of various character rigs in a list and decided upon the Victor, Penelope, and Reptilian rigs. One of the reasons I chose these rigs was due to the variety of type of character they are, with one being a male, one a female, and the other a creature. The other was the variety of designs each had. They did not look like they belong in the same universe, so I could approach various avenues when determining who the characters are.

Victor



Victor is a character modeled by Victor Beltran and rigged by Kiel Figgins. When I saw this character design, I thought they must boast a large ego. When compiling the style guide, I was heavily inspired by British soldiers and Tenzin from the *Legend of Korra* as they both had an aura that demanded respect. After studying what makes them feel this way, I found it was from two body cues that suggest superiority and confidence: how they usually have their chest puffed out and chin up. The character design also helps push confidence in the upper body as Victor has a large chest in comparison to the rest of his body, so he already suggests that he is a strong and confident individual.



The first animation in the set was the idle where he is seen in a confident stance with his head held high, looking down on others. For his idle, I wanted to showcase his serious and experienced nature, so I had him breathe in and out with long, steady breaths. For the three main sets, I decided to add a fidget animation to the idles of the characters looking around to help add some personal flair and give insight to the character's personality. For Victor's fidget, he rather slowly looks directly at the camera, looks it up and down, and shrugs off what he sees mockingly. It is through this character moment that helps pull together the rest of his set.



For the locomotion, I decided to create a mix between a strut and a march. The idea behind this was to further push his personality since the fake march he does shows while he might be experienced, he does not feel the need to comply anymore. In the posing, the body does not move like it would in a traditional march where marchers extend their arms and legs while walking, indicating how Victor's experience has gotten to his head. The main eye-catching movement is with the weight shifts, especially in the shoulder pads, showing that Victor is experienced and that he can maintain the heavy sword he bears.

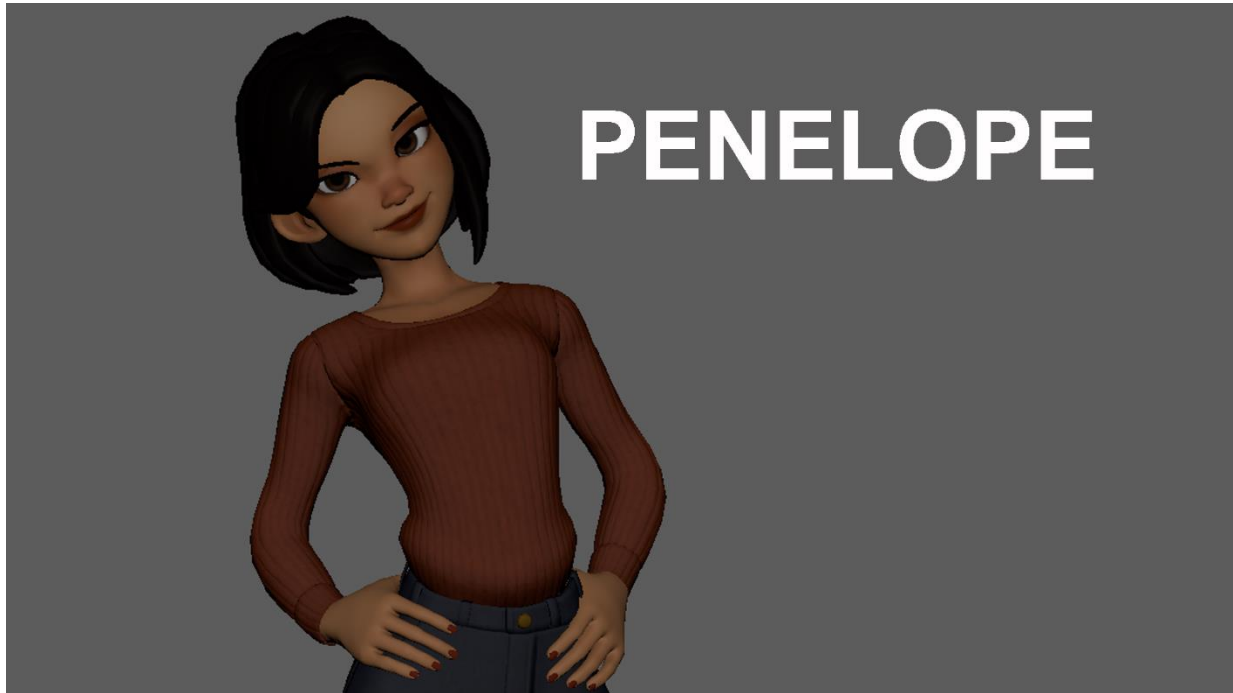


Victor does a quick swipe with his sword for his attack. This piece heavily utilizes the animation principals of overlapping action and follow through and timing to help convey personality traits. For example, when Victor swings his sword, the sword does not overshoot much to help showcase how he knows how to use his weapon. After the swing, he stays in his pose while he intimidatingly stares straight forward for an extended period of time until he just quickly throws himself back into his idle pose like nothing happened. It is this type of contrast of emotions that can really say a lot about a character's personality.

Slight tweaks to Victor's animation would suggest entirely different things about the character. Major changes such as having his chest bent over like the mannequin would perhaps insinuate a more fighter personality rather than noble type portrayed in this set. Small changes would also influence the personality. If Victor did not rest in his settle pose after swinging, he could have been portrayed as more careless in his swing and perhaps not be seen as strong. It's

this consideration for the character that ensures the personality stays and shines throughout when animating multiple things with them.

Penelope



Penelope is a character designed and rigged by Matt Trovar. For her, I went through posing a variety of personalities ranging from shy to intimidating. In the end, depicted her as femme fatale-like with something to hide. For this set, I was heavily inspired by Bayonetta from her self-titled franchise and runway models. In my study of reference, having the hips out and chest up helped insinuate the flirty details I was going for in this set. One other detail that I noticed in reference and held onto for the animation was a smirk and looking through the eyebrows in her movements. These details helped Penelope feel more intimidating and pushing for one to approach her.



Starting with the idle animation, I posed Penelope with her hands on her hip but her hips out, giving her conflicting body cues that suggest her being flirty but also dominant. Like the mannequin set, Penelope rocks back and forth slightly which helps her feel more inviting unlike the stationary Victor. For her look-around fidget, she turns her head quickly, looks what she saw up and down, and quickly turns her head back. This animation choice was to push her personality of femme fatale-like; she saw something else, but she is more fixated on the thing that first caught her eye.



As Penelope was inspired by runway models, it should come to no surprise that Penelope was depicted with a runway walk. Runway walks are used in fashion shows because they demand attention, the movement is simple and calculated, and it keeps the audience's focus on the clothes. A couple of details are exaggerated from the standard runway walk to showcase Penelope's personality. She is seen in her walk swaying her hips heavily back and forth with one hand on her hip. The reason for doing so is to give focus to her hips because the exaggerating helps suggest her flirty, femme fatale-like nature as mentioned in the standards set for the character.

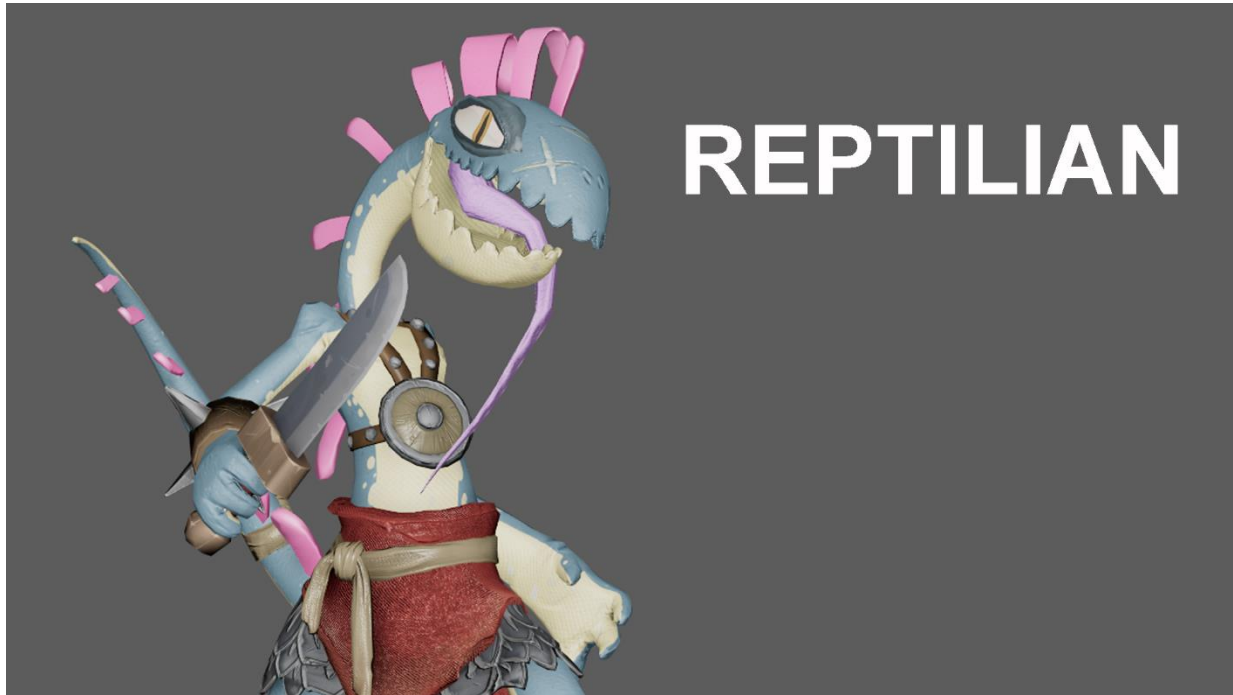


As traditionally with femme fatale-like characters, they hide something underneath their outside personality. For Penelope, she hides the ability to stretch her arms to have heavy hitting attacks. This might seem like a questionable decision, but just like any individual, we have personality traits inside that we keep hidden. To ensure that this attack did feel related to the other animations, the main eyeline and hip body language cues were present. At the start of the animation, the line of action was pushed to put the hips at the forefront at the start of attack, helping her confidently control her power. To the end of the animation, Penelope keeps her eyes on target through the swing, smirking at the end once the intimidating action is done.



There was a lot of trial and error with this animation set. As can be seen above, the first idle pose was quite different than final version. After getting some feedback on it, the main issue with that pose was it was prompting more questions than answers. Why is her arm floating out there? Is she just a confident character? How does this relate to the walk? I decided to tone it back pulled the line of action closer to push the flirty and dominant personality I was going for. It was through this feedback in my process that helped me make her set more cohesive and get a result I was satisfied with.

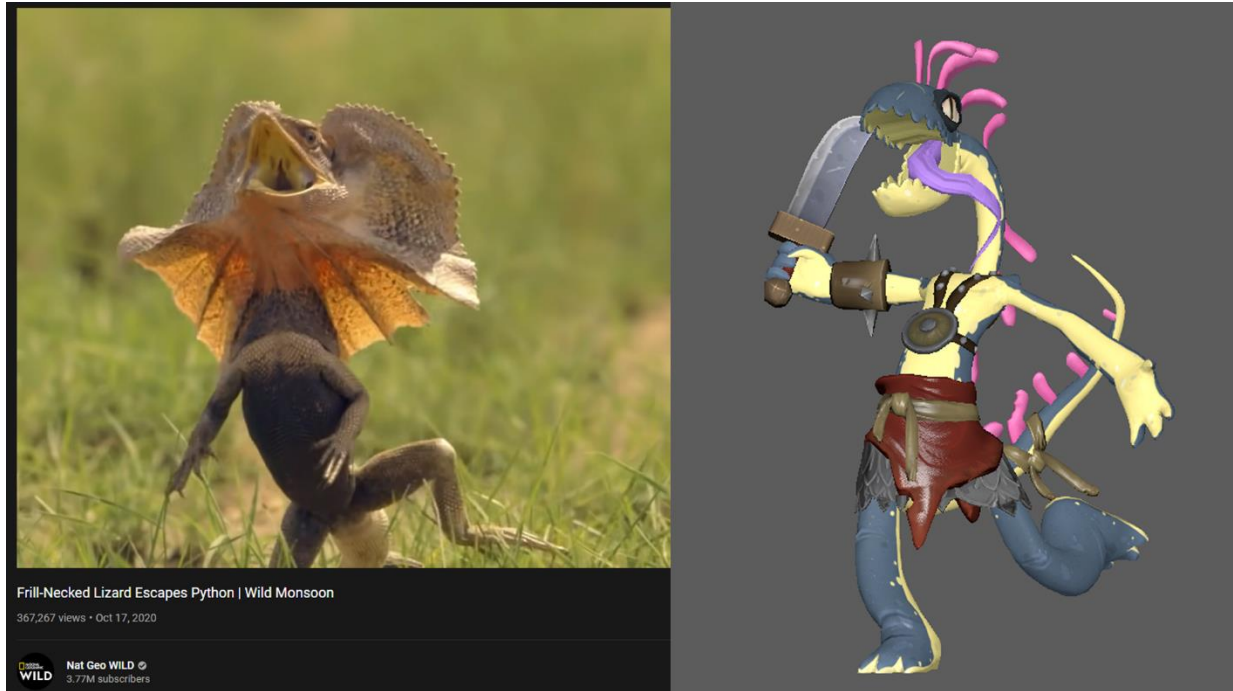
Reptilian



The Reptilian is a character modeled by Javier Gonzalez Barreiro and rigged by Emilio Serrano. When I first saw the character design, I thought I could perhaps make them an assassin or a mercenary. At the time I was planning out this character, I was playing through *Dragon Quest 11*, a game that features multiple enemies with exaggerated and personable animation. I was inspired through it to make the lizard full of energy and wanting to get into trouble. The main body language cue I had across the animations was keeping the body parts widespread to indicate how the antsy character would fight at a moment's notice. Outside of that, I tried to exaggerate poses and insert traits from how lizards move whenever possible.



In the Reptilians idle animation, he does not stop moving in his open, confrontational pose. His idle cycle is very quick to help suggest that he is very antsy, eager to get himself involved in whatever he sees happening. The key thing to keep in mind when working with creature-like characters is to implement in the animation some of the tendencies of the creature the character is based upon to elevate the believability of a performance. For the idle animation, lizards tend to do quick head and eye darts. The fidget implements on this idea; the Reptilian changes to new poses quickly and moves its head multiple times to look around while in the pose.



Keeping with the over-the-top nature of the Reptilian, the run is very exaggerated and based upon how some lizards run. The spread-out arms and curved legs in the posing help showcase how the creature just wants to fight, not caring about taking a proper stance. In the animation, the overlapping action is very apparent, especially with the creature's left arm since it lags tremendously as it cannot keep up with the speed. Compared to Victor's and Penelope's locomotion, the motion just feels faster. This is in due part to both a lower frame range and the fact that the creature holds in the air more frames than it does on the ground. All of this adds up to reflect the crazy personality desired for this character.



When deciding what to do for the Reptilian's attack, I knew it just could not simply do one single attack. To capture the character's energy, I centered the piece around three exaggerated attacks. Like the rest of the set, the poses are wide open and uncharacteristic of a calculated fighter. This idea is pushed further in how much the arm follows through and overlaps with each swing. Unlike Victor, the Reptilian's swings overshoot a lot, suggesting that they do not care how they hit you as long as they do hit a strike. The Reptilian's strikes are also rather quick, this is to reflect how quick lizards move when they take a calculated action.

The Reptilian heavily contrasts with the other characters in this thesis. What this character shows is how much actions can be pushed to showcase a personality. While the creature could just run like most bipedal characters do, the exaggerated version says a lot more about the character than the alternative might have. Animating a character with an exaggerated personality really benefits from making the pieces look more cartoony, so utilizing squash and stretch or making sure the line of action is always curved can really push the performance. This

level of detail helps achieve the goal that these types of characters satisfy; being appealing to an audience.

Conclusion



In Derek Hayes's book titled *Acting and Performance for Animation* he states, "It is the personality of a character that has a lasting audience appeal. The term appeal is very important in character-based animation. Characters without appeal are just extras. (p.84)" When studying memorable characters from entertainment, one will start to notice little nuances they have that make them who they are. As previously stated, an animator's goal is to not only make something move but bring it to life.

Through this creative thesis, I was able to capture through animation the personality of three different characters: Victor, Penelope, and the Reptilian. While they had the same

animation set of an idle, locomotion, and attack, they all felt different from one another. The way I accomplished this was through planning it out for each character with consideration for things such as what personality would best suit their design, what body language cues they might have, how to utilize animation principles to push character, and why they do an action a certain way. Having the ability to capture personality is vital for an animator, but it is just as vital planning out the process, whether collaborating with others or not.

While this thesis served as a great portfolio piece and an example of the character design pipeline, it served as an even greater challenge for me as an animator. It proved a difficult but rewarding time having to work on three different characters without them clashing with one another. Through my time working with the characters, I did many revisions based off feedback with each piece having over 10 incremental saves. Animation is a time consuming artform, but when the time and preparation is dedicated to a shot, a character can truly come to life.

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