Character brings back right arm, before striking with the left.

Anticipation, followed by payoff.
Ease in and out of punch.
Slow in, Slow out.

Character Animations

Menu

Enviroment

Aetheryte Moggle

Mainly with these animations we can infer almost all of the principles of animation:

- Staging
- Anticipation
- Straight ahead action + Pose to Pose
- Arc
- Slow in Slow Out
- Secondary Actions
- Appeal
- Follow through and overlapping action

In these animations I can primarily infer the following:

- LERP is most defiantly involved in some of these animations for the more simple movements such as walking.
- However other movements required proper, key framed animations
- Splines are possibly used in multiples such as with the bird and guitar, though there are ways for these animations to also be done by hand.

From a mathematical perspective:

- At the very least I can infer that the formula's for both LERP and possibly Splines are used.
- Other underlying math such as transformations, rotation, and scaling are also most likely prevalent
- It is hard to gauge at other possible math equations at this point however.

Very simple animation, character's head, shoulders, and upper body beyond torso slight rises, before slowly falling back down.

Liz Kaines has a tail, which bounces up and down slightly during this animation.

Character right leg is bent 90 degrees, foot slightly behind body, left leg is 180 degree's straightened out, arms are both at 90 degree angles, left arm moving back, right arm moving forward.

Analysis of Attack
The attack animation is the most complex, the actual attack itself is 2 seconds, which is an extremely short. Too fit in all of these actions within it has caused a less smooth animation overall. But it makes sense, with the amount of in game actions, such as attacks, that have attached animations, and the fact that with an MMORPG, the animations must be short, condensed, but powerful due to how fast certain skills go out, it's imperative that this amount of detail is fit within a short animation.

Along with this, some use of IK, or FK could be used, especially given that this attack is meant to target an enemy, and only be used then, so the target relationship could imply FK. Animation blending also could be another major component, to transition between different clips of animation, or this animation could be fully keyframed, but that is hard to gauge

00:00 to 00:00.5
Half a Second

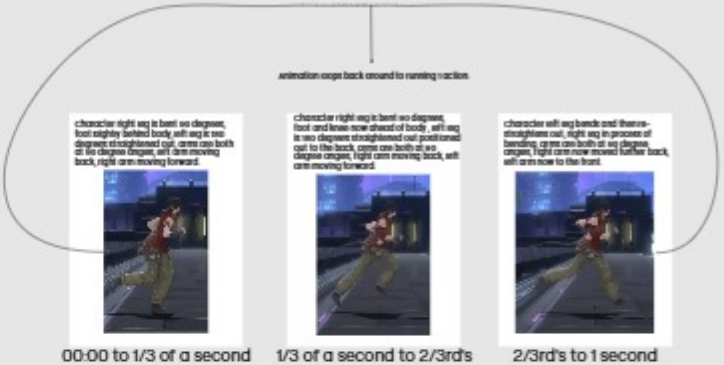
00:00.5 to 00:01
Half a Second

00:00 to 00:01.5
Half a Second

00:01.5 to 00:02
Half a Second

Analysis of Idle
This animation is extremely simple, barley involving the concept of anticipation, slow in and out, and anticipation, but it is a serviceable idle animation, and extremely simple. FK and IK most likely aren't used here, but animation blending most likely is to help with all of the different secondary actions used here.

00:00 to 00:01
1 Second



00:00 to 1/3 of a second
1/3 of a second

1/3 of a second to 2/3rd's
1/3 of a second

2/3rd's to 1 second
1/3 of a second

Analysis of Run
A simple animation on paper, but with alot of movement, there is quite a bit of minor secondary actions, follow through, arcs, follow through, and overlapping action. FK and IK rigs are also most likely used, for both the knees and arms.

Timing is taken directly from reference video using timestamped timing information.

- **Which animation intricacies caught your attention?**

Two references are used here as we are mixing two different references to create our own menu. For the Aetherite in specific (blue crystal), a simple rotation animation is applied to elements of the crystal, with miniature crystals and rings. This could be locomotion based even, or perhaps on a spline. The more likely of the two is probably the spline, given the intricacy of the rotations, the differing speeds, and the general spinning motion of the objects, a spline seems much more likely.

As for the second animation, many elements, I see characters, a train moving withing the background and a camera. Primarily we are taking from the camera motion here, so it is what I will be focusing on, the Camera very likely is on a spline, as the movement is very fluid and non linear, so it's very likely a spline is used here. The exact interpretation, such as Catmull Rom or Bezier however, is not easy to discern at this point.

- **What works and what doesn't in terms of the animation?**

These animations do a very good job of adding expressiveness, as well as life to the game. With as many dynamic objects at play here as there are however, this would not work with a game that is not stylized, or has a clear vision however. With Persona 5 it is very clear what the vision is, and it is already defined as a very stylized and unique game, as such if this were put into the context of another, it may not work as well.

- **Describe the smoothness of the animation?**

Hard to gauge at a first glance for these animations. At a basis the Aetherite/Crystal could just be on a simple locomotion based animation script, which could make it not even implicitly something keyframed. Smoothness wise it'd most likely be running off of the native framerate of the game itself based on a variable such as game time. As for the Camera, it is extremely smooth with no stuttering, a frame rate is also possible not applicable here.

- **What makes the animations interesting to you?**

Primarily, the extremely dynamic components all working together is very interesting, especially with the Crystal and the Persona 5 menu, having all of those work cohesively in an interesting challenge, and one that could be very fun to work on.

Character lowers body, winding up left hand before throwing overhead punch with right

Anticipation, followed by payoff.
Ease in and out of punch.
Slow in, Slow out.
Follow through action

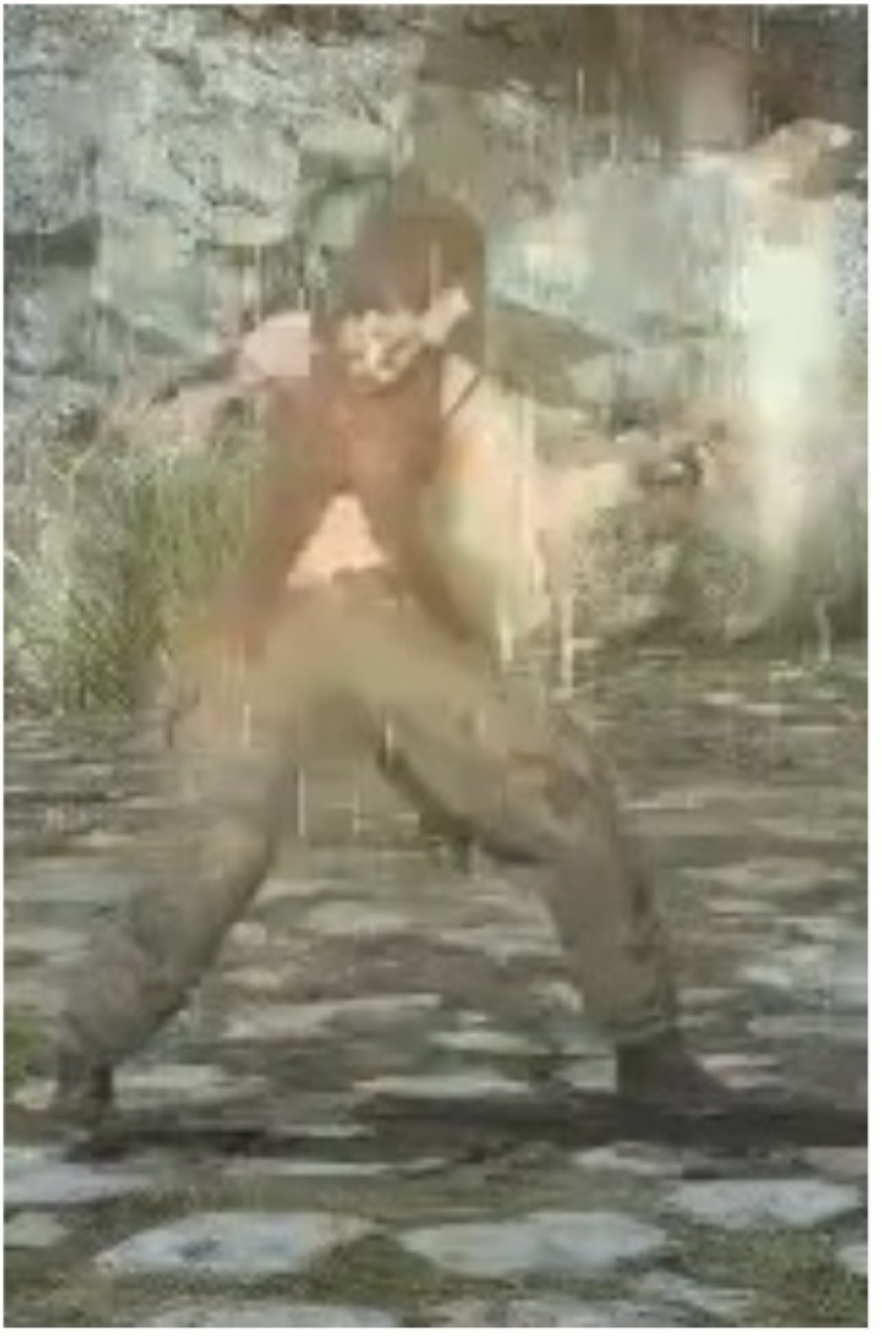
Character swings body around, moving left arm slightly down, before uppercut punch is thrown.

Anticipation, followed by payoff.
Ease in and out of punch.
Slow in, Slow out.
Follow through action

Left arm is brought back a final time, as character crouches down lower, sliding left foot back as well, before throwing final punch.

Anticipation, followed by payoff.
Ease in and out of punch.
Slow in, Slow out.
Follow through action

Punching animation is finished, and character resets pose back to idle.



Anticipation, followed by payoff.
Ease in and out of punch.
Slow in, Slow out.
Follow through action

Character right leg is bent 90 degrees, foot and knee now ahead of body , left leg is 180 degree's straightened out positioned out to the back, arms are both at 90 degree angles, right arm moving back, left arm moving forward.

Character left leg bends and then re-straightens out, right leg in process of bending. arms are both at 90 degree angles, right arm now moved further back, left arm now to the front.

Analysis of Attack
The attack animation is the most complex, the actual attack itself is 2 seconds, which is an extremely short. Too fit in all of these actions within it has caused a less smooth animation overall. But it makes sense, with the amount of in game actions, such as attacks, that have attached animations, and the fact that with an MMORPG, the animations must be short, condensed, but powerful due to how fast certain skills go out, it's imperative that this amount of detail is fit within a short animation.

Along with this, some use of IK, or FK could be used, especially given that this attack is meant to target an enemy, and only be used then, so the target relationship could imply FK. Animation blending also could be another major component, to transition between different clips of animation, or this animation could be fully keyframed, but that is hard to gauge

○ **Describe its animation: is it a simple transformation, morphing, key frame, etc?**
For the Aetherite in specific (blue crystal), a simple rotation animation is applied to elements of the crystal, with miniature crystals and rings. This could be locomotion based even, or perhaps on a spline. The more likely of the two is probably the spline, given the intricacy of the rotations, the differing speeds, and the general spinning motion of the objects, a spline seems much more likely. The moggle is more similarly animated to a character, but as it used as a dynamic object is it being treated as such. Beyond this it seems to be mainly be using some locomotion based animations, the wings however are keyframed.

○ **Is the component a 2D or 3D asset? Does this factor into its motion?**
Both assets are 3D. As for how this factors into motion with the use of 3D space, certain animations, such as wings are much harder to animation, as they may have even required a spline to create a curvature on the bones to flap the wings.

○ **When does it move? What causes it to move? How fast does it move?**
The characters are statically moving, on our end we're simply going to make them either stay in place, and perform just the simple animation movements (wing flapping, rotation of aetheryte), or they will be following a simple spline or in between two points of motion.

○ **Document the different states of the component (i.e. on/off, enabled/disabled, highlighted, not-highlighted)**
These items, at least for us will be static in movement, there won't be different states other then the basic roaming in between points for the moggles, the rotation for the aetheryte.