**VR Safari**

By Paul Grad

**Concept:**

You are Brownie, the most famous photographer in the world. Or at least you used to be until your nefarious brother and rival photographer Zeiss framed you for publishing forgeries. Disgraced and facing a million-dollar lawsuit, you now travel the world to capture the best shot for anyone who’s willing to pay and to slowly piece together evidence for your innocence.

**Target Audience:**

The intuitive analogy of the Google Cardboard as a camera allows this game to be a fun and straightforward introduction to VR for people of all ages.

**Gameplay:**

I. Menu

The player starts with the menu, which allows them to select different levels and make purchases with their points. The levels are displayed on a world map with different locations opening up upon completion of a level.

II. Levels

The level itself comprises a game scene composed of objects the player can photograph, and the player gains points for taking pictures of these objects. If enough points are accumulated in a level, the player completes the level and can use the points (s)he gained to purchase camera add-ons. If the player loses the level, the points gained in the level are forfeit.

III. Navigation:

Your player navigates through the game scene on a fixed path like a rollercoaster, similarly to Pokemon Snap.

IV. Aiming

You use your reticle to target objects in the scene, and the reticle expands when it meets an object you can photograph.

V. Taking Pictures

When you’re ready to take a picture you pull the cardboard trigger, and the reticle expands until the player releases the trigger. A photograph is then taken which is indicated by a snapshot sound, and the picture is put into your UI for you to see (the photos fit to the fixed size of the UI).

VI. Points System

The game allots points depending on several criteria:

1. Pose: Front shots get more points that back shots for objects with a “face” (which could be people, animals, cars). (DONE)
2. Size: Greater % of the object taken in the photo -> more points. (DONE)
3. Position: Center object in photo -> more points. (X)
4. Number: More objects in photo -> more points. (DONE)
5. Objects with a relation shot together award more points.
6. Objects without relation LOSE points (too much going on).
7. Capturing an important event: in the scene at pre-determined times, dramatic, clever, or funny events might occur upon a signal to the player, and photographing these events will award a large quantity of points.
8. Capturing Easter Eggs/notable items on an object. For example, an object may have important text revealing some evidence about Brownie’s framing.

The points may be awarded during the level as pictures are taken or after the level in the sequence they were taken. I am yet to decide which best communicates to the player what qualities of a photo give them the highest points.

VII. Camera Add-Ons

1. Zoom: the camera can zoom in to get pictures of objects from a distance and to reveal hidden items. (DONE)
2. Panorama: The reticle can “drag” across an area and take a picture including the entire area.
3. Autofit: The camera will automatically expand to capture all of the current object in view.
4. Freeze time.
5. Filters: Add the right filter to a photograph and it can multiply points (eg. B&W filter on dramatic photo).

**Sharing Photos**

Photos are saved for every level, and after the level the player can choose to add the photos to their personal photos on the phone or share them.

2.0

-For Points System:

7. Color: Placing “warm” colors in the center awards more points than “cool” colors. Doing the opposite may cause you to lose points.

a. Same relationship for lighting (alpha).

8. Place a star or other visual indicator for “special” moments to take a shot.

9. **TUTORIAL**

10. Highlight animals in scene.

11. Ramp up speed to start and ramp down speed to end (small accelerations only).

12. XCode: Provide way to ignore notifications in-game (responding requires you to exit VR, can’t get around that).

13. Auto-detect phone being used to adjust screen for best comfort.

Hiring/enlisting an artistic director/graphic designer:

-Provide advice on what makes a photo good/ the qualities of a good photo.

-Producing models, animations, and an environment that is beautiful enough that people would actually want to take pictures of it and save the pictures to their phone.

Animals:

1. Frog Leaping (Animation and Rigging) (.fbx or .mb).

WHY: During the game, the player crosses a rock on their left and is surprised by a giant frog that jumps toward the player. Currently have frog model but it is not animated.

I. Rigging: leg muscles and body (not head).

II. Animation: a jump with a leaping and landing motion of 3-4 second duration.

1. Monkey Waving (Animation) (.fbx or .mb):

WHY: When the player looks at a certain animal (like an elephant) a monkey will appear in the corner of their vision waving at them and making a noise to get their attention.

1. Animation: The monkey begins standing on four legs. It then cranes its head at an angle to show curiosity (widening its eyes). It then turns to match its head, and raises itself to wave at the player while making a howling noise with its mouth.
2. Panther (Animation and Texture) (.fbx or .mb)
3. Animation 1, Panther Running: Show a panther running. Its legs will be in a galloping motion, with its leg muscles extending on run and lightly shaking on impact with the ground.
4. Animation 2, Panther At Rest: Show a panther at rest. It will be resting on a tree branch, so it should sway its legs in a rocking motion and turn its head at an angle to yawn (closing its eyes).
5. Texture, Black Fur Texture: Apply a black fur texture on the panther (I can do this).

4. Gorilla and Monkey (Modeling and Animation)

WHY: On the path the player will encounter a gorilla beating its chest and howling. Sitting next to it will be the monkey with noise-canceling headphones reading a book upside-down.

1. Animation, Gorilla Chest Beating: The gorilla will stand, proudly raise its chest in the air, and beat its chest with its arms.
2. (STATIC) Modeling, Monkey with Headphones Reading: The monkey model will have oversized headphones covering its ears and will be in a slouching posture while it holds a book with its title text upside-down.
3. Parrot Thief and Flock of Birds (Modeling, Rigging, and Animation)

WHY: If the player wins the game, a parrot will land on the player’s vehicle and steal their camera, allowing the player a wide view of the forest.

1. Modeling, Parrot: A red parrot with yellow and blue fringes on its wings.
2. Rigging, Parrot: Rig its wings and feet.
3. Animation 1, Parrot Landing Motion: Show a landing motion. The wings are initially raised and then curl in and flap up and down as the bird glides down. The bird will extend its legs to meet the vehicle and then tuck its wings in and relax its legs on landing.
4. Animation 2, Parrot Starts Flying: The parrot extends its arms and then flaps them up and down to lift itself into the air, flying at a low angle towards the player.
5. Flock of Birds (Modeling, Rigging, and Animation):

WHY: As the camera is flying in the air, a flock of birds goes past and the player can take a picture of the flock of birds against the sun (notwithstanding the impossibility of a picture being taken by a bird)

1. Modeling, Parrot:

FEEDBACK:

1. Needs more obvious/immediate feedback that picture was taken.
   1. Put points in center of screen. DONE
2. Needs basic tutorial/how to play
3. Space out the level and slow down the vehicle so each animal can be seen and interacted with and player can be eased into level.
4. Trigger on pause/endgame buttons are sometimes unresponsive
   1. V1: easier to press pause buttons, but harder to take photo
   2. V2: easier to take photo, but harder to press pause buttons.