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Demo 3 Breakdown
Demo: https://vimeo.com/145221061

Demo 3 – Visual Effects, Character Animation & Lip-Sync

00:00 – Info Card & Flame Transition: This version of my Jory Media logo was created in Photoshop Elements 10. The info was added as text layers in After Effects. I desaturated a rendered sequence from an extra camera in my Jory Media Flame Promo (00:24 of this demo), raised the lightness level and added a little configuration to ensure value and lack thereof, then I used it as a transition matte for this transition in After Effects.

Software Used: Adobe Photoshop Elements 10, Home (logo design), Autodesk Maya 2015, Student (fluid effects flame simulation), Adobe After Effects CC, Academic Institution (compositing).

00:06 – Fire Elemental Character Turntable: I modeled this character after a real human model. Photographs were obtained from the instructor of my Hard Surface & Organic Modeling class, Alexander Costa, and I believe they originated from www.3d.sk. I had originally mapped UVs and textured the character to resemble her real human model for the class, but toward the end of my curriculum (my final month before graduation), I modified the character to fit this visual effects real. The lava shader network was also provided by Alex Costa in my Dynamics & Simulation class. It was originally intended for a Lava Fountain that I had designed to utilize Maya's nParticles to simulate liquid. However, the simulation had flaws and nParticle simulation is too intensive for my current computer system to handle in a time-efficient manor, especially when it isn't absolutely imperative for any current classes, so I decided to make use of the shader, even though I added configuration to fit this project.

In my extra-curricular time, I had to remap the UVs, because the UV information was corrupted between the 2014 and 2016 versions of Maya. I rigged the character and animated idle motions, which aren't entirely apparent by the turntable video alone. I used Maya Dynamics/FX Fluid Effects to create a realistically rolling flame to represent hair. The hair was configured periodically in little bits of free time that I had outside of school work over the course of about 6 months with something similar to this final result in mind.

I modeled the standard and mapped its UVs, then used color, normal and displacement maps from the 3D Scans section of www.textures.com. After that, I used mental ray's approximation editor to configure the displacement properly and rendered multiple render passes. Since this project wasn't ideal for boasting specularity and reflection, I rendered diffuse color, wireframe, glow source, incandescence, ambient occlusion, and a layer for the fluid effects. It took about 2 ½ days to render 300 frames of each of 5 layers, plus wireframe for 1 frame. The glow source layer was scrapped because glow source was faint enough that it didn't make an apparent difference. The ambient occlusion layer was only used under the wireframe layer, because the separate fluid effects layer interfered with the ambient occlusion multiplication. I would have done my best to make it work with a luma matte in After Effects, but due to time constraints, I was forced to abort that portion of production.

Software used: Adobe Photoshop Elements 10, Home (image manipulation at home), Adobe Photoshop CC, Academic Institution (image manipulation at school), Adobe After Effects CC, Academic Institution

(compositing at school), Autodesk Maya 2014, Educational (character modeling), Autodesk Maya 2016, Educational (UV Mapping, lava shader import & configuration, lighting, dynamic fluid effects, rigging, and animation), and mental ray for Maya 2016, Educational (displacement approximation & render passes).

00:24 – Jory Media Flame Promo, and proceding flame simulation: My original Jory Media logo was created in Adobe Illustrator, and I converted it to polygons in Maya. Then I beveled edges and arranged the letters for a sound visual representation. Lights were animated for a specular highlight, but cut for time in this particular demo. The flames were created with Mayas Dynamic/FX Fluid Effects and I rendered 5 different cameras in the scene with the idea that I would have a few options to choose from for the promo background, and multiple frames of variance for extra projects, such as a background for promo flyers or my creative resume. The ambient smoke was also created in Maya Dynamics/FX. I used mental ray to render 3 layers, logo, flame and smoke.

Software Used: Adobe Illustrator CS6, Academic Institution (Logo Design), Autodesk Maya 2015, Educational (.ai to polygon conversion, texturing, lighting, dynamic fluid effects, dynamic smoke, and additional animation), mental ray for Maya 2015, Educational (rendering), Adobe Premiere Elements 12, Home (compositing).

00:34 – Gas Station Explosion Simulation: The models for this scene were supplemental material for Maya Studio Projects by Todd Palamar. I simulated the explosion and destruction in Maya as instructed by the book. This is my only explosion to date, and although I wanted to have more explosions for this demo, I really didn't have enough time outside of school work. It was rendered in one pass in mental ray.

Software Used: Autodesk Maya 2014, Student (lighting, simulated flames & destruction), mental ray for Autodesk Maya 2016 (rendering), Adobe Premiere Elements 12, Home (compositing).

00:38 – Hallow Corp – Stein Shove - Coffee Liquid Simulation: This was a scene from my Pre-Production Team class. I modeled the coffee maker & coffee pot, but the other assets were not my work. I also animated this scene, and simulated liquid with nParticles in Maya Dynamics/FX. The project was

Software Used: Autodesk Maya 2015, Student (Modeling, nParticle Liquid Simulation, Anmation), mental ray for Maya 2015, Educational (rendering), Adobe Premiere Elements 12, Home (compositing)

Additional project credits are available in the full short at
https://www.youtube.com/watch?v=UnjjADrLwCA

00:42 – nParticle Liquid Simulation: While I was rendering the flames for my Jory Media Promo, it occurred to me that I didn't have much for liquid simulation, other than the coffee scenes from Hallow Corp, one of which was bugged and I had to animate the camera to hide it in order to get it done believably and on time. I modeled a rectangular basin and hollow cylinder in Maya, then I created a

short liquid simulation by pouring nParticles from the cylinder into the basin. I set up 5 cameras from various angles and rendered them all with a single layer in mental ray, even though the shading was configured in the output mesh attributes, rather than assigning a mental ray texture.

Software used: Autodesk Maya 2015, Student (modeling, texturing, lighting, liquid simulation), mental ray for Maya 2015, Student (rendering), Adobe Premiere Elements 12, Home (compositing).

00:55 – Lunar Lanes – Intro Pan, Bud's Strike & Tad's Strike – Simulated Collision: This was a team project in my Production Team class. The assets I modeled aren't pictured in these 3 scenes. The architecture mesh that I was provided with was not actually optimized for collision, so I modeled a lane floor & backstop for every lane that has collision to use as passive colliders. They had primary visibility turned off, so they didn't show up in the renders. I keyframed the balls for motion with their dynamic properties off, then switched them on at the last keyframe, so their momentum would send them into the pins with force.

Software Used: Autodesk Maya, Student (modeling, animation, collision simulation), mental ray for Maya 2015 (rendering), Adobe Premiere Elements 12, Home (compositing)

Additional project credits are available in the full short at
https://www.youtube.com/watch?v=bk7gMTEPMkA

01:14 – Neon Glass Ball & Cubes Collision: This was my first collision scene, ever. I was asked to model the sphere, cubes and floor as an assignment for my Dynamics & Simulation class, but all the assignment called for was grey objects. I modeled, textured and simulated everything in the scene in Maya 2014, and rendered the scene with mental ray.

Software Used: Autodesk Maya 2014, Student (modeling, texturing, lighting, animation, collision simulation), mental ray for Maya 2014, Student (rendering).

01:22 – Turbines & Particle Simulation: This was the background of a promo video that I created for my Compositing for Digital Film class, featuring my logo integrated into the scene and composited for photorealism, but it was shortened for time and I cut the logo & shadow layers to avoid distraction from the focus of the demo. I instanced geometry as particles in Maya 2015, and used gravity and wind fields to give them realistic motion in order to simulate the predicted effects of the turbines.

Software Used: Autodesk Maya 2015, Student (modeling, lighting, particle simulation), mental ray for Maya 2015, Student (rendering), Adobe Premiere Elements 12, Home (compositing).

01:27 – Character Animation & Lip Sync – True Detective – Matthew McCounaughey as Rust Cohle – The Membrane Theory: This audio clip was obtained from 11SecondClub.com. The character was the Norman rig, which is offered to use on the 11 Second Club website under Resources. I modeled and

textured the camera and room, then I set up the lighting with a little help from Alexander Hale. I animated the character & camera, then I rendered the scene in mental ray.

Software Used: Autodesk Maya 2014, Student (modeling, texturing, lighting, animation), mental ray for Maya 2014, Student (rendering), Adobe Premiere CC, Academic Institution (compositing).

01:36 – Character Animation & Lip Sync – Taxi Driver – Are you talking to me?: This audio clip was also obtained from 11SecondClub.com. The character was the Max rig, which is offered to use on the 11 Second Club website under Resources. I lighted and animated the scene, then rendered in mental ray.

Software Used: Autodesk Maya 2015, Student (lighting, animation), mental ray for Maya 2015, Student (rendering), Adobe Premiere Elements 12 (compositing).

01:45 – MTV's The State – Robert Ben Garant & Joe Lotruglio - Service with a Smile: I created this animation as the final project for my Intermediate 3D Animation class. I recorded the audio myself from the MTV's The State physical DVD set that I purchased. I used the Morpheus and Moom rigs for animation, but aside from the characters, I modeled all of the assets. I textured everything that I modeled, and the cartoon blob on the menu came from www.sxc.hu, which has now became www.freeimages.com.

Software Used: Adobe Audition CC, Academic Institution (audio recording & editing), Autodesk Maya 2014, Student (modeling, texturing, lighting, animation), mental ray for Maya 2014, Student (rendering), Adobe Premiere Elements 12 (Compositing).

Cartoon Blob: http://www.freeimages.com/photo/characters-icons-1164316

Morpheus & Moom rigs: http://www.11secondclub.com/resources

01:48 – Transition & Info Card: The transition was made by using one of the camera renders from the nParticle liquid simulation at 00:42 of this demo. I desaturated the sequence, raised the lightness level and added a little configuration to ensure value and lack thereof, then I used it as a transition matte for this transition in After Effects. This is the same info card as the beginning of this demo, all of the production information pertaining to that still stands.

Software used: Autodesk Maya 2015, Student (texturing, lighting, liquid simulation), mental ray for Maya 2015, Student (rendering), Adobe After Effects CC, Academic Institution (compositing).

Overall Demo Credits: The song in this demo is called Dust by **HÆLOS**. I used Adobe After Effects CC (Academic Institution) for compositing, and Audacity (Open Source) for audio editing.