

I was responsible for simulating the large scale fire and smoke in this shot from The Lion King (2019). It is the only wide shot where you see the fire and required creating bespoke simulations to achieve the look the client wanted. I did this using Pyro in Houdini and rendered the effect using Mantra.



Ship Fire, Smoke trail, Impact Dust, Debris | Setup & Sim | Synapse, Bullet

In this shot from Valerian and the City of a Thousand Planets (2017) I was responsible for simulating the smoke and fire trails from the spaceship as well as simulating the debris pieces and the impact event. For the debris I used bullet and for the smoke, fire and impact I used Synapse and Houdini.



Impact Dust | Look Dev/Setup Development | Synaps

During the production of this shot I was involved in developing the look of the impact dust from when the space ship hits the planet.



Planet Destruction Dust Storm, Debris | Setup & Sim | Synap:

Similarly in this shot, and several others in this sequence, I was responsible for developing and simulating the dust storm approaching the characters. The dust was simulated using Synapse with the emission particles created in Maya.



In this shot from Solo: A Star Wars Story (2018) I was responsible for creating a bespoke simulation for drifting snow on the side of the mountain which is blown by the train moving past. To achieve this I adapted a Pyro setup initially by Koen Hofmeester. I also simulated subtle clouds which the train and ship pass through and advect.



For this and several other shots in this sequence from the Lion King I was responsible for the smoke and fire effects. This shot required bespoke simulations, although many other shots were mainly placing and reusing caches.



Portal, Fires, Ghost trails | Setup & Look Dev | Flowline, Maya Particle

On Ghostbusters (2016) my main responsibility was creating and developing the look of this portal effect. I achieved this using Flowline and Maya particles. I also developed and simmed the pink fire and ghost trails.



Large Dust Shockwave | Setup & Simulation | Flowline, Maya Particle

In this shot from Batman v Superman: Dawn of Justice (2016) I was responsible for creating the large scale dust sims which envelopes the city. I achieved this by creating a bespoke setup in Maya and Flowline.



Dust, Debris, Grit, Sparks | Setup & Simulation | Flowline, Maya Particles

In this shot, and several others in this sequence, I was responsible for creating fairly large dust shockwaves (including grit and debris), coming from the character Doomsday. These were also created using a bespoke setup in Maya and Flowline.



Explosions | Simulation | Flowline

I was responsible for simulating a number of hero explosions for Guardians of the Galaxy (2014). These were driven by destruction sims. This was achieved using Flowline and Maya.



Explosion & Flaming Debris | Simulation | Flowlin

As well as the large background explosion in this shot I was also responsible for simulating the fire trailing from the large debris piece that hits the window of Rocket's ship. This was also achieved using a setup I developed in Flowline.



Dirt, Dust & Rocks | Simulation | Flowline & Maya Particle

In this sequence from The Seventh Son (2013) I was responsible for simulating the dirt clumps which are kicked up by the Boggart character. I achieved this using Flowline. The dirt clumps are clumped particles with debris geo instanced onto some of them.



Wood Splinters/Debris & Dust | Simulation | Maya Particle

In this shot I was responsible for simulating the tree debris/splinters and dust, as well as a very subtle dust and needles pass from the branches. The tree itself was animated in the animation department and my job was to make it feel like it was breaking apart. This was achieved using standard Maya tools.



Silt, Grit, Debris | Setup & Simulation | Synapse, Houdin

On Valerian I was also responsible for a number of shots of silt in this sequence. This shot in particular required a bespoke setup for the silt coming from the Bromosaur's mouth. This was simmed in Synapse.



Silt, Grit, Debris | Setup & Simulation | Synapse, Houdi

For this shot, and many others in the sequence, I was responsible for developing the setup to simulate the silt, debris and particulate kicked up by the monsters and sub. The main simulations were done using Synapse with the initial sources, prep work and pressure solve produced procedurally in Houdini.

In this shot I was responsible for creating the simulation of the debris and red dust coming from the root breaking. For this I used pops and pyro in Houdini.



In this shot also from Lion King I was responsible for creating the fire, smoke and dust from the tree. The tree fire builds up over the shot and ignites the ground. This was achieved by adapting a fire setup initially created by Victor Wagner and creating a bespoke setup for the dust.



Explosion Debris & Debris Trails | Simulation | Maya Particle

In this shot from Prometheus (2012) I was responsible for simulating the explosion debris and the smaller smoke trails. The main explosion and large smoke trails were created by Lorenzo Lavatelli. The debris were simulated using Maya nParticles



Falling Sand & Debris | Simulation | Maya Particl

In this shot I was responsible for simulating the sand, dust and debris which falls from the silo doors as they open. These elements were all created using standard Maya dynamics.



Thrusters/Heat Haze | Simulation & Rendering | Custom Particle Tools

In many shots throughout Prometheus I was responsible for deploying the thrusters setup by Joan Panis. This setup used particles and geo with animated textures which needed to be adapted for each shot. This particular shot required additional elements for the thrust cone.



Clouds | Simulation | Maya Fluid & Proprietary to

I created a library of clouds for Man Of Steel (2013) using a proprietary cloud tool, developed by MPC, as well as Maya fluids. This involved taking geometry sculpted by the assets department and running simulations to achieve the amount of advection desired by the client. I also created cloud layouts for shots in the sequence.



Drop Ship Plasma Burst | FX Rig/Setup | Maya Particles

I was also responsible for creating and developing a setup for a plasma weapon fired from Zod's dropship. I used Maya particles and geometry to create the setup, which was then deployed into shots by artists at a different site location.



Superman Heatvision | FX Rig/Setup | Maya Particles

Similarly as above, I developed the heatvision setup using geometry and Maya particles, which was then deployed into shots by other artists.



Starblaster Thrusters | Setup/Look Dev | Maya Particles & Flui

On Guardians of the Galaxy I was also responsible for creating and developing the look of the Starblaster's thrusters. The client was quite specific with the look they desired for this. I created the final look using Maya fluid, particles and rendered geo. The setup was then procedurally deployed to many hundreds of crowd ships



Drone Thrusters & Heat Haze | Setup/Look Dev | Maya Particles & Fluid

in the shots.

For Furious 7 (2015) one of my responsibilities was creating the setup for the drone thrusters which was then deployed by several artists into shots throughout the sequence. The setup had to react to the animation of the flaps, length and intensity from the rig.



Snow, Atmospherics | Simulation & Render | Houdini

In this shot from Solo, I was responsible for the general atmospherics and the snow kickup from the incoming spaceship. I created the setup for the kickup using Pyro in Houdini.



Snow, Atmospherics | Simulation & Render | Houdin

In this shot I was responsible for the clouds interacting with the ship and also the snow. This was also achieved using Houdini Pyro and particles advected by volume in pops.



Snow, Atmospherics, Sparks | Simulation & Render | Hou

In this and several other shots I was responsible for the subtle snow and volumes around the train. In this shot in particular I was also responsible for the impact from the blasters.



Dust storm & debris | Setup & Simulation | Houdini

My responsibilities on Dora and the Lost City of Gold (2019) was to develop and simulate a large scale dust storm. I simmed a lot of dust and debris caches using Houdini Pyro, particles and Vellum. In this shot I created bespoke sims but for many others I created generic caches which were placed into the shots by myself and other artists.



In numerous shots such as this one on Lion King I simmed ground interaction dust and debris for animals running on different terrains. This was done with a combination of different setups depending on the terrain, i.e. rock, sand, grass. In this shot I simmed the ground interaction with the zebra crowd. This was achieved using Houdini.



Snow Wash/Interacttion, Chunks | Simulation | Flowline, Maya Particle

For several shots in this sequence from Spectre (2016) I was responsible for simulating snow wash and snow chunks from the interaction between the plane and the ground. I used a combination of Flowline and Maya particles to achieve this.



Wood debris, dust, engine impacts | Simulation & Setup | Flowline, Maya Particl

I worked on several shots where the plane crashes through a building and sends logs flying through the air. In the plate photography they had a small number of logs flying through the air and I had to add around 10 times more to enhance the explosive feeling of the shot. Also I added the dust trailing behind the plane and also log impacts with the CG propellers of the aircraft. I used Maya particles and fluid.



Churning Water (base of the wave) | Setup Development/Simulation | Flowline

On Exodus: Gods and Kings (2014) I worked alongside Chet Leavai to develop a churning water setup used for the whitewater at the base of the large wave. This was used in numerous shots throughout the sequence and was achieved using Flowline.



Dirt, Dust & Rocks | Simulation | Flowline & Maya Particles

Similarly in this shot I simmed dust and wood debris using Maya fluid and nParticles.

In this shot I simmed dust and debris using

Maya fluid and nParticles.

Wood Splinters/Debris & Dust | Simulation | Maya Particle



Fleece Magic Elements | Simulation & Rendering | Maya Particle

For Percy Jackson: Sea of Monsters (2013) I worked with several others to develop multiple magic elements for the magic fleece effect. My main responsibility was simulating the colourful 'nebula' which surrounded the fleece which was achieved by rendering many millions of particles to give the feeling of a volume.



Blue Magic Elements | Simulation & Rendering | Maya Particles & Fluid

In this shot I created the blue magic which comes from the monster, using Maya fluid and particles.



For this shot I simmed the dragon drool using strands of Maya nCloth which were constrained to the dragon's mouth and animated to snap apart at certain times during the shot.

Dragon Drool | Simulation | Maya nC



Blood & Atmospheric Dust | Simulation & Placement | Maya Particles

In several shots for John Carter (2012) I had the task of placing Maya fluid dust caches and simulating blue blood using an nParticle setup by Nuno Pereira.

In this shot I was responsible for simulating dust from the characters using a Maya fluid

setup from Ville-Matti Vasama.



Creature Dust Trails | Simulation | Maya Fluid



Exploding Nazis | Simulation & Rendering | DMM & Maya nClo

I worked on several shots for the short film Kung Fury (2015) where I was required to simulate soldiers exploding.



Here is a still from a playblast showing one of the exploding soldiers described above. I worked closely with the director, David Sandberg, to produce the stringy tearing look he wanted. This was achieved using DMM in Maya and Maya nCloth



As part of my work on Furious 7 I also developed a fire rig in Flowline to add car fires to the plate. This setup was used in several shots throughout the sequence.

Car Fire | FX Rig/Setup | Flowline



Evaluation Flomonts | Simulation C Bondering | Flowline

Breath | Simulation & Render | Houdini

Also for Furious 7 I simulated explosions and spark elements in Flowline used in several shots.

On Solo I also created numerous sims of breath for several characters on the train heist sequence, using a setup created by Beau Garcia.