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Breakdown Sheet

Technical Effects Reel 2015

01 fx Snow - In these select shots, I was responsible for simulating layers of particle effects to depict the advection of snow bits in the path of Santa's sleigh.

- SideFx Houdini
- Studio Proprietary Tools

02 fx Bull Disintegrate - The petals were simulated by fellow fx artist Bill Konersman, while I was responsible for building the system to disintegrate this massive bull into black particles.

- SideFX Houdini

03 fx Black Sand - Working with black sand particle effects was a major part of my work on Rise of the Guardians. In this shot and the one after, I am responsible for the particle simulation used to demonstrate Pitch's control and manipulation of sand.

- SideFX Houdini

04 fx Candles/Wax Generate - A fully customizable candle/candle wax generator was one of my development tasks on Jorge R. Gutiérrez' "The Book of Life". The fx tool, developed for the layout department, allows an artist to design, distribute and randomize candles throughout various shots. The procedural system allows an artist to control melted wax from each candle, and the melted wax conforms to nearby geometry.

- SideFx Houdini
- Python

05 fx Nightmares - Pitch's nightmares from Rise of the Guardians was an integral part of the film. I worked extensively on this character FX across many shots, all of which were quite unique in some way. For this FX, I am responsible for the trailing ribbon simulation/grooming, the black sand and lighting/rendering.

- SideFX Houdini

06 fx Fog - I had the opportunity to produce a lot of volumetric effects for 'How to Train Your Dragon: Gift of the Night Fury'. In these shots, I am responsible for generating and distributing the volumetric fog.

- Autodesk Maya
- Proprietary tools

07 fx Fruit Hat – In this shot, the fruit hat was dissected and 'rigged' with a series of dynamic wire constraints, which allowed me to simulate each element directly and indirectly with various forces.

- SideFX Houdini

08 fx Water Fountain – A simple Water Fountain FX Asset built with the creative placement of sinks and fluid emitters.

- SideFX Houdini

09 fx Turbo Trails – The Turbo Trails effect includes the sparks (key-framed and timed with the high-speed action), the smoke trails and trails on the ground, all derived from a single travel path curve.

- SideFX Houdini
- Proprietary Tools

10 ALL Fx - One of the largest FX Shots in the film "The Book of Life" and my first shot as an FX Lead, as I was responsible for the look-development, R&D and execution of all on-screen effects in this shot. A minor crowd system was built by using a "nearest path" solution for advecting points along the terrain towards assigned 'goal points'. This worked to simulate smaller bulls 'filling' the interior of the massive bull. A simple lattice-deformed geometry was provided by the animator, which was then used to drive the construction of small bone-elements which morphs and reveal the final geometry. Select elements were passed through an RBD system for added effect. A velocity curve was used to drive a low-rez tornado, velocity volumes then advect points, which were sourced by 50+ clusters of high-rez volume simulations to produce the dense tornado. Velocity volumes were reused to drive the debris within the tornado.

- SideFx Houdini