

# Rony Edde

## Software Engineer / FX TD

### SKILLS

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Software Development	Houdini HDK	Houdini Fluids	Houdini Particles	Procedural Modeling
Procedural Animation	Rigid Body Simulation	Shader Writing	Scripting	Computer Vision
ImageMagick (Magick++)	Qt/PyQt	OpenCV	OpenGL	CUDA

### PROGRAMING LANGUAGES

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C, C++, Python, Hscript, MEL, Java.

### SOFTWARE

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Houdini, Nuke, Maya, Katana, Microsoft Visual Studio C++, Texmaker, Matlab.

### PLATFORMS

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Linux, Windows 2000/NT/XP/7/10

### PROFESSIONAL EXPERIENCE

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**Apple, Cupertino, CA**

**March 2017 - Present**

Software Engineer

***Calibration***

- Developed a GPU camera and sensor simulator framework.

***Undisclosed***

- Software.

**Sony Pictures Imageworks, Vancouver, BC**

**November 2014 - July 2015**

Senior FX Technical Director

***Hotel Transylvania 2***

- FX shot work.

**Industrial Light & Magic, San Francisco, CA**

**March 2014 - June 2014**

FX Technical Director

***Transformers: Age Of Extinction***

- Hypno Transformation R&D and setup.
- FX shot work: Dynamic robot transformation, Engine thrusts, heat waves, debris and dust.

**Sony Pictures Imageworks, Vancouver, BC**

**October 2013 - February 2014**

Senior FX Technical Director

***The Amazing Spider-Man 2***

- FX Destruction and water simulation shot work and setup.

**Method Studios, Santa Monica, CA**

**April 2013 - June 2013**

FX Technical Director

***Into The Storm (Category Six)***

- FX shot work: Destruction smoke simulations, mist and rain.

**Rhythm and Hues, El Segundo, CA**

**July 2011 - February 2013**

FX Technical Director

***Into The Storm (Category Six)***

- FX destruction R&D.

***Life of PI***

- Developed ocean whitecaps tools for all the whitecaps shots.
- FX shot work: Fluid simulations, rain volumes and drops, splashes and water sheeting,

**Digital Domain**, Vancouver, BC  
FX Technical Director

**June 2010 - May 2011**

***Transformers: Dark of the Moon***

- FX shot work: Engine thrusts, heat waves and smoke.

***Thor***

- Developed tools for Storm (Digital Domain's proprietary volumetric renderer).
- Developed workflow tools and OTLs.
- FX shot work using Houdini fluids and Storm for the Bi-Frost effect, shock waves, ripples and smoke blasts.

**ImageMovers Digital**, San Rafael, CA  
Senior Technical Director

**December 2007 - June 2010**

***Mars Needs Moms!***

- FX shot work (Particles and foam).

***A Christmas Carol***

- FX shot work (Houdini RBD simulations, dust, soot, fog vortex and ghost light streaks).

***Pipeline tools***

- Wrote OpenGL application for viewing GTO format geometry with textures, lighting, camera, display management and animated cache optimization.
- Gave Houdini classes for the FX department to help integrate Houdini.
- Wrote miscellaneous PyQt GUIs and tools for managing cache exports, both on the farm and locally.
- Wrote a node based character picker library and interface for Animation TDs.
- Wrote Houdini plug-ins for importing and exporting GTO format geometry.
- Wrote Houdini plug-ins for importing and exporting in house proprietary fluid data.
- Integrated Bullet libraries and Houdini plug-ins and implemented constraints into the Houdini Bullet plug-in.

**LucasFilm Animation**, San Francisco, CA  
Animation Tools Engineer

**April 2007 - November 2007**

***The Clone Wars and unannounced feature***

- Wrote GTK GUIs and utilities for the animation pipeline.
- Ported tools from the ILM pipeline and added functionality to existing tools to seamlessly function in two separate pipelines.
- Gave Houdini classes at ILM and LucasFilm Animation.

**The Orphanage VFX**, San Francisco, CA  
FX Technical Director

**July 2006 - April 2007**

***Die Hard 4: Live Free or Die Hard***

- FX shot work and pipeline development for highway elevation collapse sequence.
- Developed geometry fracturing tools for the highway.

***The Last Mimzy***

- FX shot work and shader development on Cocoon and Wormhole effects.

**DNA Productions**, Irving, TX  
Technical Director (Layout, Set Dressing, Crowd and Animation Departments)

**April 2005 - July 2006**

***The Ant Bully***

- Wrote command line utilities for layout to accelerate workflow.
- Developed OTLs to assist layout artists in organizing assets and exporting plates and shots from Houdini to Maya and created utilities for assets and hierarchies and error checking.
- Released utilities both as GUI and non GUI versions for exporting entire sequences.
- Designed the layout pipeline tools in Houdini.
- Wrote a Houdini to Maya scene exporter that maintains hierarchy and animation.
- Fixed pipeline errors and assisted artists and TDs in solving problems.
- Developed self-contained programs with GUI that offer task scheduling and simulation and rendering automation.
- Created a channel converter that generates Massive™ camera data from Houdini files.
- Wrote command line utilities for parsing and modifying large files and manipulating data.
- Wrote MEL scripts that automate render processes and queues.
- Wrote MEL scripts for detecting and fixing errors.

## **EDUCATION**

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**University of Pennsylvania**, Philadelphia, PA

**Currently Enrolled**

- MSE in Computer and Information Science (ongoing).

**Savannah College of Art & Design**, Savannah, GA

**Graduated May 2004**

- B.F.A. in Computer Art.
- Final Project
  - Optimized rigging processes in Maya to increase real time performance.
  - Developed a car dynamics MEL script to create realistic car behavior.
  - Created a muscle setup and rig in Houdini with realistic deformations.
- Tutoring
  - Helped students in understanding dynamics, math and MEL scripting.
  - Helped students understand the basics of the French language.
- Awards
  - Scholarship for portfolio review.
  - Dean's list for 2 quarters.

**Lebanese American University, Beirut, Lebanon**

**Fall 1999 - Summer 2001**

- B.S. in Computer Science (unfinished).
- B.S. In Graphic Design (unfinished).

**Grand Lycée Franco Libanais, Beirut, Lebanon**

**Graduated 1999**

- Baccalauréat Français Scientifique Option Mathématiques.

## **PERSONAL**

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**Pulsar: A Volume Modeling Plug-ins suite for Houdini:**

Developed a volume modeling suite of multi-threaded plug-ins for Houdini designed to rasterise geometric input into very high resolution volumes using a custom Perlin noise implementation.

**Siggraph 2012 Presentaion on Volume Modeling Plug-ins:**

**August 2012**

Gave a technical presentation, tips and tricks and demo on the volume modeling techniques used by Pulsar.

**Gigacon Presentation on Rendering Soft Particles/Sprites:**

**January 2010**

Gave a technical presentation on how to setup and render soft particles/sprites.