

# MICHAEL BREYMANN

himself@michaelbreymann.com

CREATIVE CODER // TECHNICAL DIRECTOR

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## SKILLS

Technical direction and project management for virtual reality content creation.

Realtime 3D graphics programming with C++ and OpenGL for game engines.

Asset and custom tool development for company-wide deployment.

12 years visual effects production experience for feature films.

Expert knowledge of photogrammetry and reality capture techniques for 3D asset creation.

Windows, OSX, Linux proficient.

## EXPERIENCE

### Co-Founder & CTO

Kaleidoscope VR

2015-2017

Project manager of *The Last Mountain* and *Mad God*, developed in Unity for Oculus Rift and Samsung GearVR. Wrote an equirectangular projection mapping plugin for Unity. Built a project database with Mongo and Angular for developers to easily share their builds, scoped with access privileges. Pitched HTC and was subsequently accepted into their first VR accelerator program, *ViveX*, for development of an image-based rendering solution using C++, OpenVR, and the Cinder creative coding framework.

### Technical Director

Industrial Light & Magic

2009-2015

FX and 3D environment technical director for feature films using Houdini for particle and fluid simulations, 3ds Max and Nuke for full-CG digital sets. Wrote production tools in Python for inter-department use: a laser look development package from FX to compositing on *Avengers*, instanced jungle foliage geometry from layout to lighting on *Jurassic World*.

### VFX Pipeline

#### Consultant

TV Globo

2010

Developed a pipeline for building CG environments using photogrammetry, automated image processing in PERL, and structure from motion algorithms (Bundler, CMVS, PMVS2) for *Globo*, a Brazilian television studio. These tools were used in production on the popular telenovela, *Passione*.

### Photogrammetry

#### Software Developer

Glyph Software

2006-2009

Sole owner and graphics developer at Glyph Software, LLC, a Micro-ISV specializing in photogrammetry software for the visual effects industry, *The Mattepainting Toolkit for Maya*, which is currently in use at studios around the world.

### 3D Generalist

Various

2004-2009

Designed and built 3D environments and art-directed particle/fluid dynamic simulations for natural effects such as fire and water for feature films. See portfolio at <http://www.michaelbreymann.com> for details.

## PROJECTS

**Kaleidoscope VR**  
2015-2017

The Last Mountain, Mad God

**Industrial Light & Magic**  
2009-2015

Jurassic World, Transformers 4, Noah, Captain America Winter Soldier, Pacific Rim, The Lone Ranger, The Avengers, Cowboys and Aliens, I Am Number 4, The Last Airbender

**LucasArts**  
2013

Star Wars 1313

**Matteworld Digital**  
2006-2009

Zodiac, Invincible, The Golden Compass, The Curious Case of Benjamin Button

**Evil Eye Pictures**  
2005-2009

Pirates of the Caribbean 3, Spiderman 3, Speed Racer, Ninja Assassin, 2012

**Giant Killer Robots**  
2005

Fantastic 4

**CafeFX**  
2004-2005

Sin City, The Adventures of Shark Boy and Lava Girl

## SOFTWARE

Maya, Houdini, 3ds Max, Unity, Unreal Engine, Nuke, Photoshop, After Effects, Agisoft Photoscan, V-Ray, Renderman, C++, Python, MEL, HTML, CSS, Javascript

## EDUCATION

BA in English from the University of Michigan, 2001