Hi, I'm

Dhruv Govil

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Vancouver, Canada

Software Engineer
3D Artist
UI & UX Designer

Feature Film
Realtime Graphics
AR & VR
Full Stack Web

I'm a developer, artist and designer with extensive experience in both Film and Realtime computer graphics.

I've worked in a variety of roles being a 3D Artist and Software Engineer, with a heavy focus on UI and UX design.

I combine my range of skills to create compelling software and content for both consumers and content creators.

Skills

Languages

Python
C++
Swift / Objective-C
Rust
C#
GLSL , MSL
Lua
Javascript

Frameworks & APIs

Qt , PySide , PyQt
SwiftUI
OpenGL , Metal
RealityKit
Pixar USD

Software

Maya
Houdini
Katana
Nuke
Reality Composer Pro
Unity
Unreal Engine
Blender

Experience

Principal Software Engineer, Augmented Reality, Apple
February 2020 - Present

- Worked on **visionOS** first party applications and architected 3D content pipeline for **Reality Composer Pro**.
- Founding member of the **Alliance for OpenUSD**.
- Co-Created **App Clip Codes**. Responsible for generation algorithm, initial visuals and leadership demos.
- Shepherded and co-developed multiple USD initiatives. Contributor to **Pixar USD**, **MaterialX**, **Blender** and **Maya USD**.
- Worked as and with UI/UX designers to create intuitive artist and engineering workflows.
- Awarded design and rendering patents for innovations in AR / VR.
- Lead Engineer on **Reality Converter**.

Lead Technical Artist, Augmented Reality, Apple
August 2018 - February 2020

- Worked on application prototypes and concepts for the **Apple Vision Pro**.
- Responsible for creating UI, UX and Art Content for multiple projects. Includes creating interface design, interaction design, asset modelling, lighting, shading, rigging and animation.
- Created concept art , software prototypes , presentations and video productions for Apple leadership.
- Awarded Augmented Reality content, rendering and simulation patents.
- Developed Augmented Reality applications using RealityKit and Swift, as well as Unity and C#.
- Developed several AR applications as both an artist and engineer.
- Provided training sessions to artists and engineers.

Crewed Shows

Smallfoot

Spider-Man: Homecoming

Suicide Squad

Alice: Through the Looking Glass

Smurfs: The Lost Village

Guardians of the Galaxy

Hotel Transylvania 2

The Amazing Spider-Man 2

Blended

Cloudy with a Chance of Meatballs 2

Percy Jackson and the Sea of Monsters

R.I.P.D

Seventh Son

Contributing Shows

Spider-Man: Into the SpiderVerse

The Emoji Movie

Storks

Hotel Transylvania 3

Love, Death and Robots: Lucky 13

The Angry Birds Movie

The Interview

Notable

WWDC 2023 Presenter
Explore the USD ecosystem

SIGGRAPH 2017 Presenter
Deep Compositing tools for Animation Collaboration

On Set Production
Assistant Camera Operator and Gaffer

Educational Content
Authored Python for Maya course on several platforms with 7000+ students.

Education

Vancouver Film School
Studied 2D and 3D Animation

Rigging Dojo
C++ for Maya

iAnimate
3D Animation

Experience

Pipeline and Layout Supervisor, Sony Pictures Imageworks
October 2016 - August 2018

- Developed and maintained critical Pipeline software for all active shows in production.
- Oversaw a team of Pipeline TD's and Layout Artists on Visual Effects and Animated Features
- Developed new Shot Review and Approval Pipeline with 100x improvement in performance using a new frontend and server architecture.
- Co-Developed a Virtual Production system with tracked virtual cameras, a motion capture stage and Virtual Reality asset/scene reviewing.
- Created a Proof of Concept port of our pipeline to use Pixar USD
- Developed a bespoke pipeline to Unity for an **Augmented Reality Project**

Pipeline and Layout, Varying Seniority, Sony Pictures Imageworks
January 2013 - October 2016

- Production software development and artist support on VFX and Animation shows.
- Handled camera, plate and scene layout on a mix of VFX and full CG Shots and sequences.
- Co-Developed new Shot Publishing and Validation toolset used by all productions
- Developed a Deep Compositing toolset for fast animation collaboration with multiple animators or split up scenes.
- Created a dynamic scene origin plugin for Maya and a full pipeline integration to handle large scale scenes.
- Wrote a procedural muscle simulation pipeline with **Ziva** to significantly reduce required Character FX resources.
- Developed Motion capture ingestion pipeline.

Animation Support TD & Scene Layout, Rhythm & Hues
June 2012 - January 2013

- Responsible for layout and pre-lighting of VFX scenes.
- Assist animators with scenes, rigs and scripts.
- Develop tools for in house tool, Voodoo, with proprietary language, Parsley.
- Responsible for department in Vancouver, and training new hires.
- Develop artist color management pipeline.
- Developed Scene lighting management tools
- Created prototype Python bindings and an IDE for Parsley.
- Wrote tools to streamline ticket submission and management.