



DJS

associates

Forensic Consulting, Technology & Animations

LAURENCE R. PENN, CFVT

Senior Forensic Animation / Video Specialist & Visual Effects Creative Director

EDUCATION

Maryland Institute College of Art (MICA)

Bachelor of Fine Arts (BFA) in Illustration; Spring 2001, GPA: 3.6

Concentration in Digital Multimedia and 3D Animation

National Art Honors Society Scholarship

MICA Presidential Award, Illustration Departmental Award, MICA Achievement Award

PROFESSIONAL EXPERIENCE

2016 - Present DJS Associates Inc., Abington, PA – Senior Forensic Animation/Video Specialist

Assists with engineering computer animations through processing scan data, modeling, texturing, animating, and compositing the final rendered deliverables. Performs digital video forensic analysis for authenticity and tampering, as well as camera and object motion tracking for 3D scene reconstructions. Automates and optimizes workflows and creates interactive demonstrative tools with script programming.

MIMICS (Microcomputer Image Modeling Interface and Capture System), 2021

Custom-built and scripted multi-camera array with over 50 Raspberry Pi cameras for photogrammetry scanning of people and objects for use in 3D animations and accident reconstructions.

Interactive, 3D Simulation App Prototype, 2018

Programmed for lifeguard training using the Unity Game Engine platform in collaboration with Aquatic Safety Research Group.

2020 - Present Theorem 3D, Abington, PA - Visual Effects (VFX) Creative Director

Coordinates and supervises teams and technology for on-set visual effects production, reality capture, previsualization, camera match moving, 3D animation and compositing for film, episodic television, and advertising.

2022 The Rainbow Prince Project, Laura Napier and Doug Claybourne

Visual Effects Creative Director for 30-minute short film managing in-house and external team including award-winning Stereo-D Hollywood VFX powerhouse for production of over 70 VFX shots. 3D animation, camera match moving, and compositing for over 20 VFX shots.

2003 - 2016 Dynamic Digital Advertising, LLC., Willow Grove, PA

Senior 3D/2D Animator, Editor and Senior Flash Programmer

Philips Healthcare: Heart Navigator eLearning app development, front-end programming, user interface design, 3D modeling and animation.

The Medical University of South Carolina: Modified Barium Swallowing Impairment Profile (MBSIMP) eLearning platform development and front-end programming, anatomical 3D modeling and 3D animation.

Warner Brothers, L'Oréal, Hot Topic: Interactive CD-ROMs & DVDs including movie "300" behind-the-scenes DVD.

ETHOS Health Communications: Ethos Engage multiuser LAN Peer-to-Peer interactive presentation app development and front-end programming.

- 2016 Dionysus Productions, LLC., Philadelphia, PA**
Star Wars - Precious Cargo (Fan Film): 45-second 3D animation dogfight, Spaceship 3D modeling & live-action compositing, Lightsaber VFX for 30-second fight with 3 actors & 4 light sabers, hologram VFX and compositing.
- 2016 Iron Horse Cinema, PA/NJ**
Promo - (League of Legends theme): 3D modeling & animation of "Vi" Gauntlets for live-action compositing.
- 2016 John Hutelmyer, Philadelphia, PA**
The Kenn Kweder Documentary: VFX compositing of posters into multiple live-action shots.
- 2015 PopKitchen Co., Providence, RI**
Teknor Apex: Hose coupling system video including 3D modeling and animation with multiple-pass rendering.
- 2015 Kid Laser and the Dynamite Deal, Sitka, AK**
Machines and Monsters: Album cover and album release poster illustration.
- 2014 Pretty Damn Sweet, Philadelphia, PA**
Railroad Earth: VFX compositing of multiple shots for "Chasin' a Rainbow" music video.
- 2013 Midnight Crew Studios, Baltimore, MD**
Call Girl of Cthulhu: VFX compositing for multiple shots.
- 2013 Junk Cinema Productions, Philadelphia, PA**
Illustrated anthropologist's sketchbook for the indie movie "Leech Brain".

CONTINUING EDUCATION

CyArk

Terrestrial Photogrammetry Data Capture; 1/31/2025

Photography Techniques for Terrestrial Photogrammetry, Field Scoping and Documentation, Data Management and Pre-Processing, Small-Object Photogrammetry

Udemy

Unreal Engine VR Development Fundamentals; 8/25/2023

Introduction to Blueprints, VR Development Basics

AccuPixel Ltd.

Metashape Professional Edition for Forensics & Surveying; 11/7/2023

Optimization, Working with DEMs and Orthomosaics, Metashape and Drones

Metashape Foundation Course for Forensics & Surveying: 8/21/2023
Fundamentals of Photogrammetry, Metashape Workflows

Law Enforcement and Emergency Services Video Association International, Inc. (LEVA)

Level 4: Advanced Forensic Video Analysis & the Law; 5/1/2023 – 5/5/2023

Advanced Forensic Video Analysis Techniques, Practical Exam, Written Exam, Moot Court

Level 3: The Principles of Video/Image Compare and Contrast; 1/24/2022 – 1/28/2022

Scientific Method ACE-VR, Bias and the Implications, Forensic Comparative Analysis, and the Law

Level 2: Digital Multimedia Evidence Processing; 7/12/20201 – 7/16/2021

Principles of CCTV Systems, Data Authentication and Integrity Verification, DME Acquisition and Processing Best Practices, Legal Issues with Digital Video, Audio Theory

Level 1: Forensic Video Analysis and the Law; 3/22/2021 – 3/26/2021

Digital Multimedia Evidence (DME) Fundamentals, Video Compression Theory, Proper Recovery of DME

The Pixel Farm PFAcademy PFTrack Software Proficiency Certification

PFTrack Core Course 300; 8/17/2022; PFTA300-000038

PFTrack Core Course 200; 7/13/2022; PFTA200-000054

PFTrack Core Course 100; 2/8/2022; PFTA100-000218

Certified Forensic Video Technician (CFVT): 7/16/2021 – Present

Member Since 9/5/2019

eForensics Magazine: Digital Video Forensics (W28); 11/15/2018

Certificate: 56371436564922

Video Evidence Concepts and Principles, Video Analysis, Content Authentication, Tamper Detection

FXPHD: Visual Effects (VFX) Training

Certificate: FUE2CU5MERH25VVK

Digital Video Fundamentals, Chroma Key Compositing

VFX Foundations I (VFX201; 10/2012)

Python Scripting for Compositors (PYT101; 10/2012)

Intermediate Nuke (NUK204; VFX Compositing Software; 7/2012)

Introduction to Nuke (NUK103; VFX Compositing Software; 6/2012)

SKILLS / SOFTWARE

- 3D Modeling, Painting, Animation, Rendering: 3DStudioMax, Chaos Group V-Ray Physically Based Rendering, NewTek LightWave 3D, Octane Render Engine, Phoenix FD, TyFlow, Agisoft Metashape
- Camera Match Moving: Pixel Farm PFTrack
- 3D Point Cloud Scan Processing: Leica Cyclone, Leica Register360, Faro Scene
- Nuke: Multiple-Pass Compositing, Rig Removal, Tracking
- Imagineer Systems - Mocha: Tracking, Roto and Camera Match Moving
- Adobe Creative Cloud
 - After Effects: keying, expressions, camera tracking, particle systems, multiple-pass compositing
 - Photoshop, Illustrator, Encore, Premiere
- Unreal Game Engine, Unity Game Engine
- Proficient in Python Scripting
- Proficient in French

PRESENTATIONS

“Accuracy in Engineering Animations,” Webinar, Abington, PA, January 2024

“Maximizing the Potential of Video Evidence Webinar,” Pennsylvania Bar Institute: Forensics in Capital Cases, Abington, PA, December 2023

“Surveillance & Videogrammetry Analysis for Collision Reconstruction,” NASP Conference 2019, Washington, D.C., October 2019

“The Forensic Engineering Analysis of Surveillance Video: A Real-World Example,” 6th Annual Claims Symposium, Harrisburg, PA, May 2019

“How New Technology Allows you to Evaluate your Case in Three Dimensions,” 2019 NJAJ Boardwalk Seminar, Harrah’s Resort, Atlantic City, NJ, May 2019

“The Investigation of a Vehicle Collision: An Interactive Seminar Where YOU Take Part in the Investigation,” Forensic Storage & Technology Center, Southampton, PA, May 2019

“LIDAR and Photogrammetry: Comprehensive Data Collection for Historical Preservation,” AEC Next and SPAR 3D Expo and Conference, Anaheim, CA, June 2018

“Lunch and Learn: Video and 3D Analysis,” DJS Associates, Inc., Abington, PA, May 2018

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