



Appendix A

Curriculum Vitae

PROFESSIONAL SUMMARY:

Forensic Visualization Expert specializing in evidence based visual analysis and reconstruction for vehicle collisions, crime scene investigations, and premises liability matters. Works closely with forensic engineers to develop accurate, defensible visuals informed by physical and digital evidence. Focused on translating technical information into clear visual narratives for use in litigation and courtroom presentation.



EDUCATION:

B.S., Digital Art & Animation, The New England Institute of Art, Brookline, MA, 2011

EXPERIENCE:

Forensic Visualization Expert, Knott Laboratory, LLC, Centennial, CO, 2024 to Present

FORENSIC ENGINEERING:

Mr. Goguen joined Knott Laboratory's forensic team in September 2024, specializing in the creation of scientifically accurate visualizations and graphics for forensic investigations. He supports cases involving vehicle accidents, workplace incidents, and shooting events through the development of detailed reconstructions grounded in physical evidence and scene documentation. Using 3D modeling, photogrammetry, matchmoving, and point cloud analysis, he develops reconstructions that are technically accurate and clearly presented.

Mr. Goguen is an FAA licensed remote pilot and performs aerial surveys and lidar-based site inspections to capture accurate spatial data. This data is used to support reliable site documentation and reconstruction.

Mr. Goguen evaluates emerging technologies and software to refine forensic visualization workflows and support ongoing improvements in accuracy and efficiency.

3D DESIGN:

Mr. Goguen is an experienced 3D digital artist specializing in the creation of accurate visual representations. His skill set includes 3D modeling, texturing, lighting, animation, and photorealistic rendering. He applies these techniques in combination with point cloud data to develop reconstructions that accurately depict incident conditions.

His work also includes matchmoving and virtual camera integration to ensure seamless integration of 3D elements with real world imagery and footage. His attention to precision and visual clarity supports both forensic analysis and effective visual presentation.

AREAS OF EXPERTISE:

- Modeling, texturing, lighting, photorealistic rendering, and animation
- Photogrammetry, videogrammetry, and matchmoving
- Lidar and drone-based data capture, point cloud processing and cleanup
- Video editing and compositing
- Evidence-based diagramming

SOFTWARE PROFICIENCIES:

- | | |
|--------------------------------------|--------------------------|
| • Autodesk 3D Studio Max | • Cyclone Register 360 |
| • Chaos V-Ray | • Cloud Compare |
| • Blender | • Autodesk Recap Pro |
| • ZBrush | • PhotoModeler Premium |
| • Adobe Substance Painter & Designer | • Adobe Premiere |
| • Adobe Photoshop | • Google Earth Pro |
| • Adobe After Effects | • Boris FX SynchEyes |
| • Unreal Engine | • Microsoft Office Suite |
| • Agisoft Metashape Professional | |

LICENSES AND CERTIFICATIONS:

- FAA-License Remote Pilot #5124999
- Advanced Photogrammetry for Collision Reconstruction – Lightpoint Learning

CONTINUING EDUCATION PRESENTATIONS:

- Presenter, Point cloud data processing and applications in forensic visualization
- Presenter, Camera and Video Fundamentals in Forensic Visualization

FORENSIC VISUALIZATION CASEWORK EXPERIENCE:

Workplace Accidents

- Slip events
- Trip events
- Fall events
- Machinery and electrical malfunction incidents

Shooting Incidents

- Officer-involved shootings analyzed through body-worn cameras, patrol vehicle footage, surveillance video, and mobile recordings
- Reaction time analysis
- Incident timeline development
- GPS data mapping
- Video synchronization

Vehicle Accident Reconstruction

- Pedestrian impact analysis and movement dynamics
- Commercial and consumer vehicle collision reconstructions
- Physically based simulation
- Dashcam and security footage synchronization
- Final rest positioning and evidence-based diagramming
- Speed calculations

VISUALIZATION PROCESSES:

- Drone and lidar data capture and conversion into point clouds and virtual 3D scenes
- Site reconstruction from video footage and photographs
- Motion capture and video-based human motion tracking
- Virtual sun and shadow analysis
- Vehicle and pedestrian tracking, plotting, and motion analysis
- Camera matching and perspective alignment
- Vehicle and biped animation aligned to video and photographic evidence
- Graphics creation for presenting data-driven visual analysis
- Tailored workflows depending on case requirements