

DEVYN COLE

RESUME

WORK EXPERIENCE

FX Shoulder Solutions, Addison, Tx

AR Software Engineer (solo developer)

January 2026 – Present

Solo dev on a markerless AR surgical guidance headset for shoulder arthroplasty, responsible for the full stack from computer vision and tracking to the Unity front end, custom OpenXR driver, and the headset prototype. Built the tooling used to capture and annotate the training data for its AI models, and contributed to the company's surgical planning software.

FX Augmented Reality Software and Headset — Computer Vision based AR Surgical Guidance

A headset that places surgical guidance directly on the patient's anatomy, trained and tested on cadaver specimens. The whole tracking system was built around one idea, detecting and tracking the 6-DoF pose of patient anatomy using the RGB and depth sensors to handle anatomy mapping, instrument tracking, and surgical measurement. Trained custom detection and landmark models and fused them with IMU and depth camera odometry to hold a stable pose on the shoulder during surgery. The Python host runs as a multi-process system in order to keep real-time throughput, with IMU prediction to cover render latency so the overlay does not lag behind a moving head. Wrote a custom OpenXR driver for the Unity front end and put together the headset prototype itself: dual RealSense depth cameras, a custom binocular micro OLED display, and a fanless design made for the sterile operating room. Conducted an anatomical measurement accuracy study to aid in FDA submission.

FX Data Tools — AI training-data pipeline

A suite of Python tools built to produce the training data behind the headset's AI models. It captures annotated 3D sessions straight from the AR rig into structured, versioned datasets. The largest piece is the annotation tool, used to label captured sessions and structure them into usable training data. The remaining tools assemble those sessions into training datasets for the lab, cadaver, and sawbones variants and train a model on each. Model testing validates each trained model against its own dataset, with a hardware probe that checks the depth camera's exposure and gain against known ground truth.

FX Planning software — Surgical planning for shoulder arthroplasty

Helped write the save system and an AI model for automatic landmark placement, and built the packaging tool for the Windows and macOS releases.

Work performed under NDA; technical specifics available to prospective employers in confidence.

Dallas, Tx

gamedevyn@gmail.com

gamedevyn.com

TECHNICAL SKILLS

XR & ENGINES

Unity VR and AR Development

Custom OpenXR driver development

Engine Tools Development

Multiplayer Networking

UI/UX development

Performance profiling

VISION & SENSING

Real-time 3D tracking & pose estimation

Computer vision (RT-DETR, model training)

Sensor fusion (SLAM/VIO, RGB-D, IMU)

Motion-to-photon latency compensation

SYSTEMS & DEPLOYMENT

Real-time multi-process Python

Edge deployment (Jetson / NVIDIA)

Headset prototyping (cameras, displays)

Multi-device deployment & packaging

Regulatory & patient-data (PHI) handling

WORK EXPERIENCE (CONTINUED)

Team21 Studio, remote

Art Director, Technical Artist, Developer

July 2022 – December 2025

Responsible for both ends of the art development and implementation pipeline, managing a small team of artists and verifying final asset quality. Developed tools to speed up asset implementation and simplify asset management, and documented processes for asset creation and finalization. Overhauled and optimized the render pipeline and shaders per platform to hold target framerate across all target devices. Worked with the development team on systems for the player body and networked player representation, and assisted in optimized character customization and cosmetics. Managed the player community and content release cycles in partnership with owners and stakeholders.

Ilysia — A VR MMORPG Developed for Meta Quest 2/3 and PCVR

An open world MMO game developed for mainstream VR platforms. Ilysia required a “from the ground up” approach to rendering, player body customization, and world streaming in order to meet the tight performance constraints of mobile VR headsets.

The DevHouse Agency, Dallas, Tx

Art Team Lead, Tech Artist, Developer

September 2020 – June 2022

Solo dev on large scale client projects. Lead a team of artists in day to day tasks, providing direction and feedback. Developed workflow solutions throughout the game art pipeline. Created art process and workflow documentation to set quality standards.

Neighborhood Leap — Location based AR art installation in Fort Worth

An AR app built for Amphibian Stage, a Fort Worth based theater production company. The goal of the project was to show off the rich artistic culture of Fort Worth’s South Main Village. 20 unique location based art installations were placed in AR. Each work of art was commissioned by local Fort Worth artists.

hARitage — AR app that brings historical characters to life

An AR app on the iOS App Store placing animated historical characters in the real world. Developed a motion capture pipeline allowing for full body motion capture and facial tracking for character speech.

Justin Bieber Virtual Concert — Live virtual concert utilizing immersive technology

A livestream broadcast of a full Justin Bieber concert utilizing a real-time motion captured avatar and digital environments.

Aireal and Aireal Designer — AR Arch-vis application and editor

Developed to help realtors and builders showcase homes and offices. It allowed users to place a to-scale AR model of specific homes and offices, allowing them to walk through and change materials like flooring, fixtures, and appliances. As the project grew, a standalone web based editor was made to allow users to create their own walk-through locations.

TECHNICAL SKILLS (CONTINUED)

ART & PIPELINE

Shader development

Animation

Motion Capture

Visual Effects

Character Rigging

3D Printing / Scanning

Photogrammetry

Asset Optimization

Pipeline Architecture

LEADERSHIP & DELIVERY

Project Management

Team Leadership

Community Management

EDUCATION

Collin College

Plano, Tx

Certificate for Animation and Game Art

ACHIEVEMENTS

Vice President of SAGA

Collin College Dean’s List

Oculus Start Member

REFERENCES

Available upon request