



# Pablo Cardenas

Realtime Supervisor | MoCap & Virtual Production Pipelines  
Vancouver, British Columbia, Canada

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▶ **Demo Reel:** <https://www.youtube.com/watch?v=WAtENJR6NYU>



## Professional Summary

Realtime Supervisor with 8+ years of experience leading motion capture, performance capture, previsualization, and real-time production pipelines for animation and virtual production. Experienced in supervising cross-functional teams across Unreal Engine, rigging, VFX, virtual camera, and performance workflows, with hands-on expertise in MotionBuilder, Python automation, live retargeting, OptiTrack capture, and real-time visualization. Skilled at translating creative direction into reliable technical workflows, supporting directors, performers, animation teams, and production leadership from capture planning through downstream delivery.

## Professional Experience

### Realtime Supervisor

Versatile Media — Vancouver, Canada | 2023–Present

- Supervise virtual production, performance capture, VFX, rigging, and virtual camera teams across multiple productions.
- Direct live motion capture and performance capture shoots with performers, directors, production leadership, and technical teams.
- Translate scripts, storyboards, and creative direction into capture plans, shot execution, and real-time previs, supporting rough layout, performance blocking, and shot validation in Unreal Engine.
- Own end-to-end performance pipelines, from capture and data processing to live retargeting, real-time visualization, and delivery to animation and editorial.
- Support large-scale LED wall and virtual production workflows, managing real-time playback, camera synchronization, lighting continuity, and technical validation.
- Lead QA, technical testing, and validation for pipeline changes, tools, and workflow updates, minimizing disruption to artist workflows.
- Coordinate capture workflows and reviews in ShotGrid, Jira, Google Drive, and Frame.io, providing creative feedback, tracking progress, and presenting dailies to stakeholders.
- Develop Unreal Engine tools for performance capture and previs, including Magic Marker projection mapping, virtual camera creation, stage teleportation, and visualization utilities.
- Build Python-based MotionBuilder tools to automate live retargeting, create configured retarget scenes in one action, and prepare data for real-time streaming into Unreal Engine.
- Provide hands-on technical troubleshooting and user support across performance, layout, and pipeline workflows, resolving complex issues before they affect production delivery.
- Manage Perforce version control and stream integration for Unreal Engine projects.
- Identify technical risks across capture, layout, rigging, Unreal Engine, and performance pipelines, implementing proactive solutions to protect schedules and avoid lost production days.

### Performance Capture Technical Director

Versatile Media — Vancouver, Canada | 2022–2023

- Led day-to-day motion capture and performance capture operations, ensuring capture quality, data consistency, and schedule alignment.
- Owned capture data acquisition, cleanup, processing, and delivery, supporting animation, layout, and production teams from shoot planning through handoff.
- Developed Python-based MotionBuilder tools to automate live retargeting workflows and Unreal Engine tools for real-time performance visualization, streaming, and playback validation.
- Coordinated with animation, engineering, and production teams to ensure capture readiness, asset usability, and reliable pipeline integration.

## **Technical Artist (Unreal / Motion Capture)**

Versatile Media — Vancouver, Canada | 2022

- Calibrated and operated OptiTrack motion capture volumes for real-time performance capture workflows.
- Programmed Unreal Engine Blueprints, materials, and Editor Utility Widgets, while supporting Python-based MotionBuilder tools for capture automation, visualization, and workflow efficiency.
- Supported troubleshooting, technical validation, and performance workflow checks prior to production delivery.

## **Research Assistant – Virtual Production & Capture**

Simon Fraser University — Vancouver, Canada | 2021–Present

- Conduct research on VR, AR, and projection mapping for actor performance, spatial awareness, and motion capture effectiveness.
- Analyze performer interaction and visual feedback to improve performance workflows, staging clarity, and technical reliability.
- Apply research insights directly to real-time capture, previs, and virtual production pipelines.

## **Technical Artist (Unreal Engine)**

Reblika B.V. — Rotterdam, Netherlands | 2021–2022

- Developed Unreal Engine materials for real-time character customization systems.
- Created CG layouts, camera animation, lighting, and renders for previs-style and final-pixel workflows.
- Managed character pipeline tasks including wrapping, retopology, UV layout, and texture baking.

## **Technical Artist (Unreal Engine)**

Lifelike & Believable Animation Design Inc. — Vancouver, Canada | 2020–2021

- Simulated real-time hair and cloth dynamics in Unreal Engine for interactive character workflows.
- Developed VFX systems, materials, and NPC state machines for real-time applications.
- Implemented multiplayer pipelines hosted on AWS.
- Created client-facing presentation videos and supported live performance broadcasts.

## **UE Developer & Team Lead**

Viewport Immersive — Vancouver, Canada | 2020

- Scoped, planned, and led a 3-person team in the delivery of a VR experience from concept through final implementation.
- Designed and optimized large-scale real-time environments with a focus on performance, visual clarity, and reliable user experience.

## **Motion Capture Technician & Developer / 3D Animator**

XR Tales — Guadalajara, Mexico | 2019–2020

- Co-directed virtual production scenes using green screen workflows and real-time characters.
- Directed motion capture sessions with real-time preview, supporting performance validation, staging, and shot planning.
- Supervised production teams of 8+ artists across modeling, rigging, and UV workflows.
- Designed motion capture and virtual production pipelines to support animation, performance visualization, and production delivery.

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## **Education**

### **MSc - Interactive Arts & Technology**

Simon Fraser University — Vancouver, Canada | 2026

### **VR / AR Design & Development (Diploma)**

Vancouver Film School — Vancouver, Canada | 2020

### **B.A. - Animation & Digital Arts**

Tecnológico de Monterrey — Guadalajara, Mexico | 2019

### **3D Design & Digital Animation (Certificate)**

UNIAT Online — Guadalajara, Mexico | 2016

### **Introduction to Game Design**

edX / MITx — Online | 2015