



PORTFOLIO

Javier Molina

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Hello,

I am Javier Molina

*Technical Animator &
Pipeline and Tools Engineer*

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Education

2013-2015 - MS, Integrated Design & Media
New York University

2009-2013 - BS, Electronic Engineering
Army Polytechnic University

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Experience

2024-2025 - Game Systems Programmer, PwC

2019-2024 - Lead Technical Animator, Bats-toi INC

2018-2019 - Deployment Engineer, Sandbox VR





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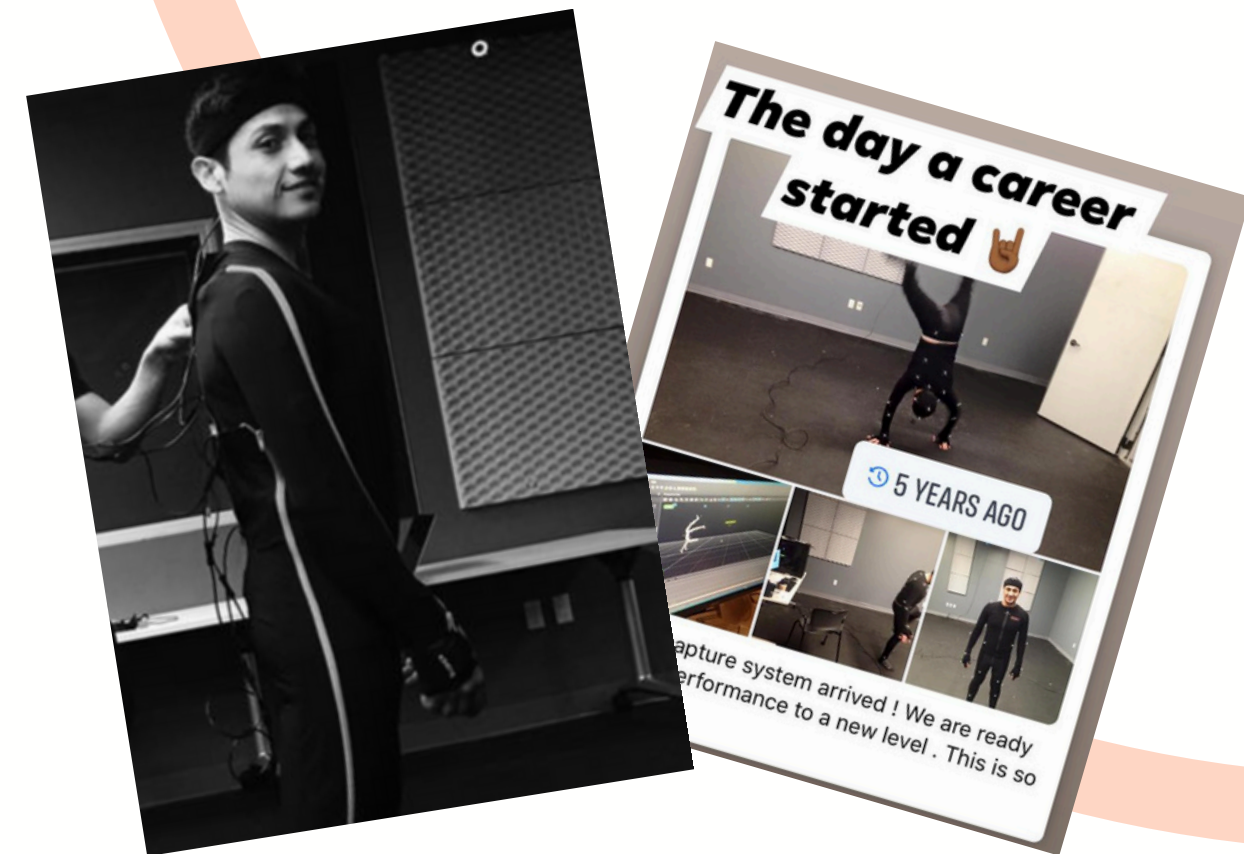
Career Vision

Dedicated to advancing game animation technology through innovative pipeline development and motion capture integration. Specializing in creating robust technical solutions that bridge the gap between creative vision and technical implementation.



Career Mission

To develop cutting-edge animation systems and tools that empower creators while pushing the boundaries of interactive entertainment. Focused on optimizing workflows through automation and creating scalable solutions for complex animation challenges.



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Deep Understanding of Technical Animation & Game Development Pipeline

Combat Systems Development

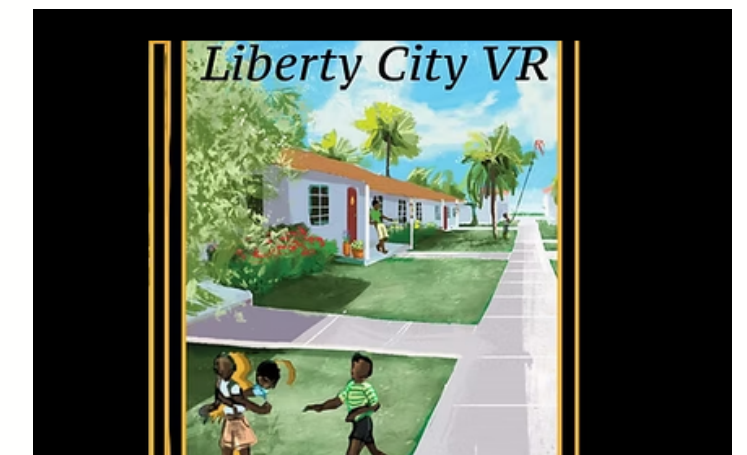
- *Real-time networked animation*
- *State machine architecture*
- *Motion warping integration*
- *Systems Programming*

Motion Capture Expertise

- *Multi-system integration*
- *Real-time data processing*
- *Automated cleanup pipelines for animation pipelines*

Pipeline & Tools Development

- *Custom tool creation*
- *Performance optimization*
- *QA automation frameworks*



Wrestling Game Development

Lead Technical Animator at Bats-toi INC

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Challenge

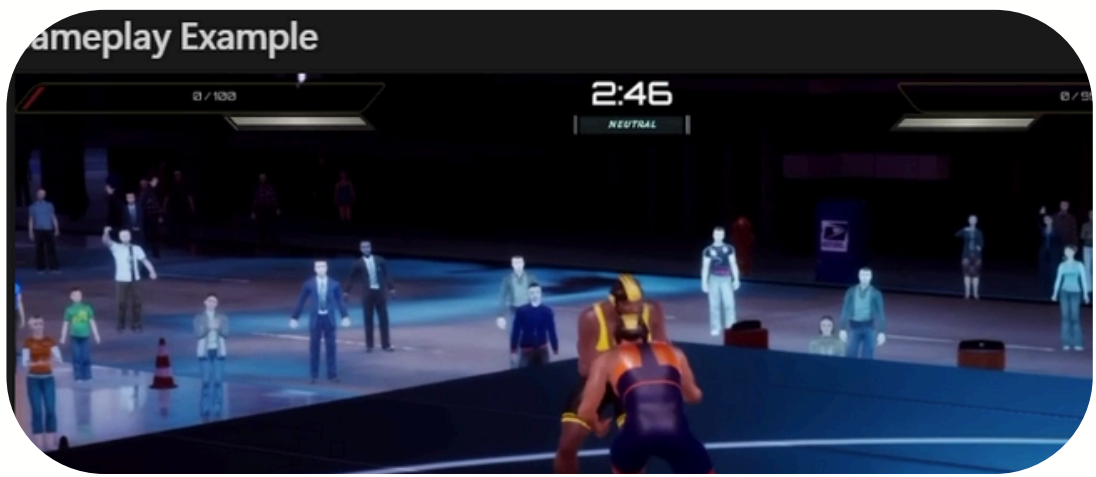
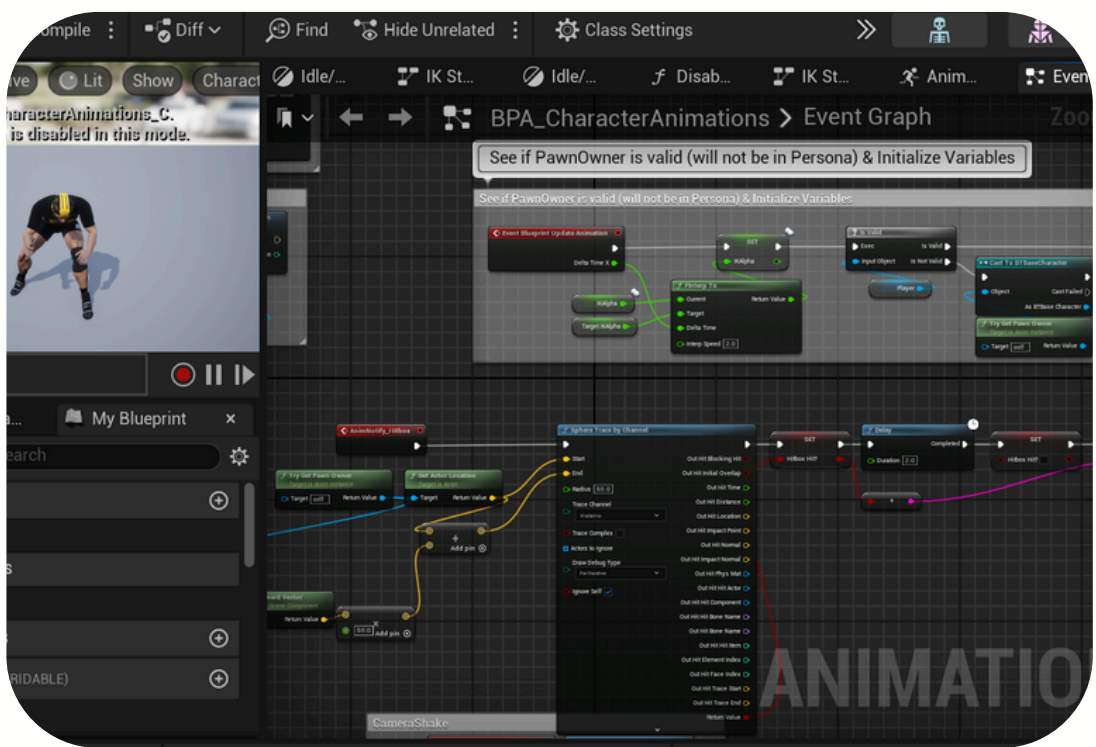
Creating an online multiplayer combat system with 100+ unique moves

Solution

- State machine architecture for complex move sets
- Real-time motion warping system
- Networked animation synchronization

Impact

- 30% reduction in production time
- Sub-20ms network synchronization
- Zero animation popping in multiplayer



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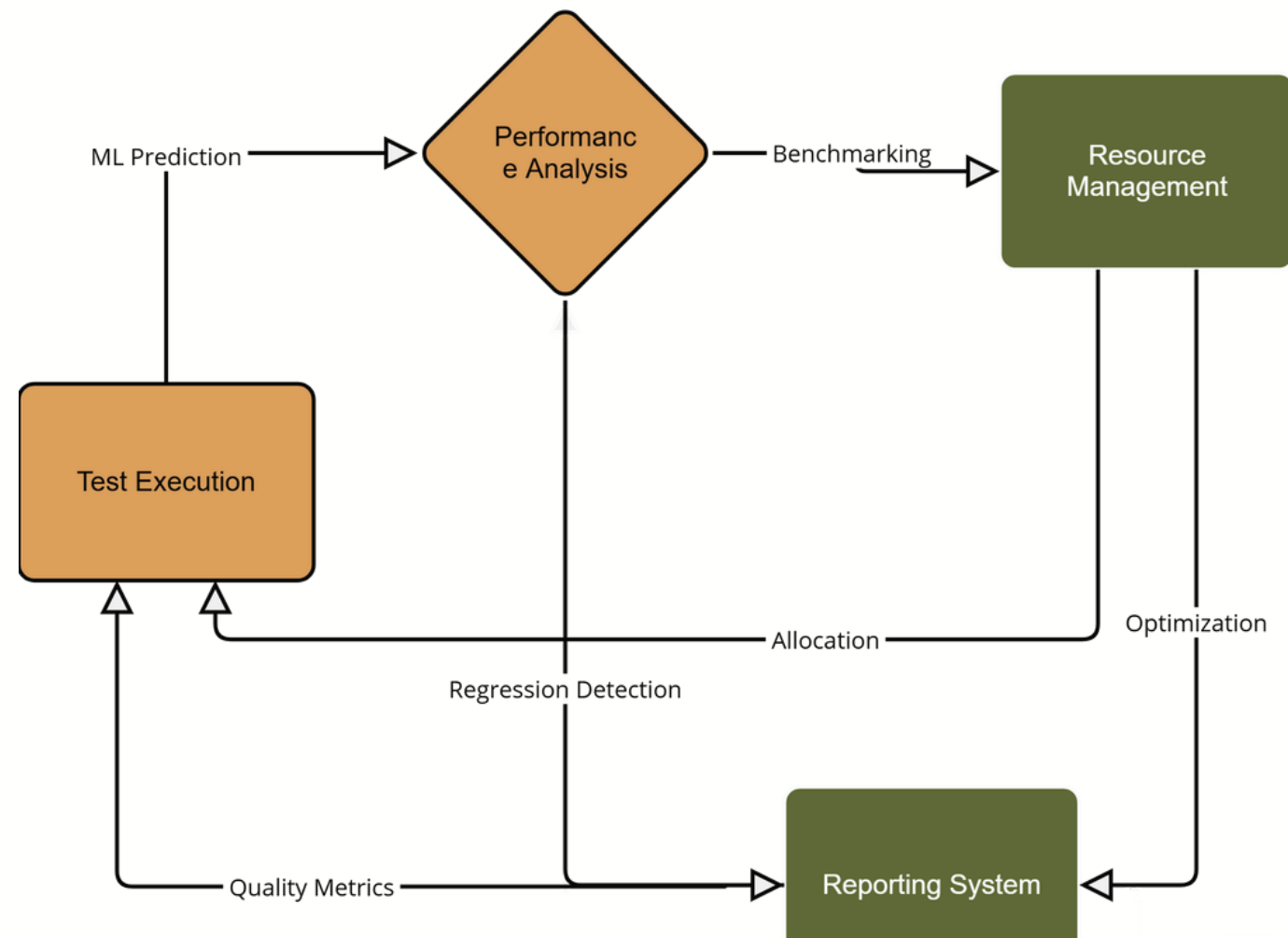
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QA Testing Framework



Impact

- Significant reduction in QA time
- 100% automation of regression testing
- Early detection of performance issues

Challenge

Comprehensive testing of animation systems

Solution

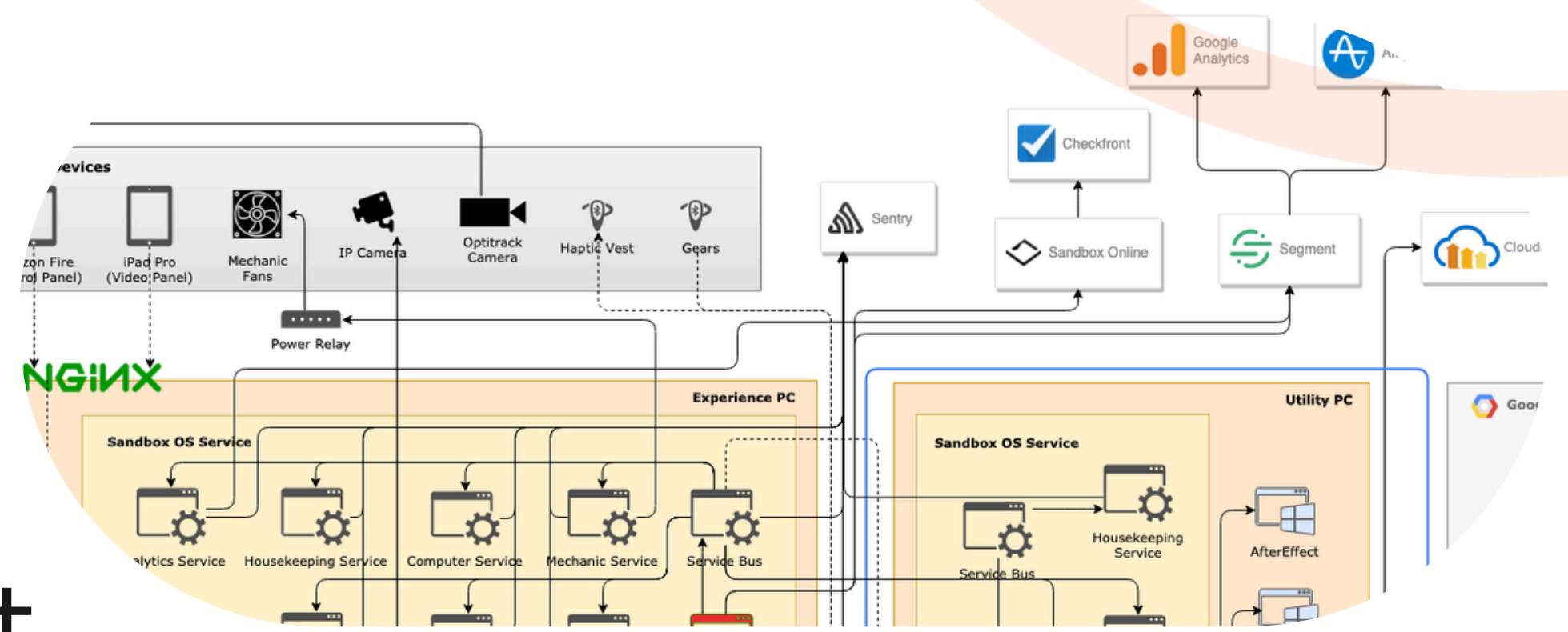
- Automated test execution framework
- Performance monitoring system
- Real-time regression detection



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Multi-Room VR Deployment

Deployment Engineer at Sanbox VR



Challenge

Multi-room VR experience deployment requiring synchronized services integration of physical devices (cameras, trackers, haptic vests) with software services

Solution

- Distributed System Design
- Service Integration: NGINX, MySQL, FEMPEG
- Monitoring Stack: DataDog, Google Analytics

Impact

- Seamless integration of multiple tracking systems (OptiTrack cameras, haptic vests, etc.)
- Automated health monitoring and issue detection
- Scalable architecture supporting 6+ player simultaneous experiences

Multi-user VR Theater Performance

Producer & Technical Director



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Challenge

- Scale live VR theater to 100 concurrent global users (NY, Amsterdam, Abu-Dhabi, Shanghai)
- Synchronize live mocap performance data with networked audio
- Create seamless hybrid experience combining VR users and physical audience during Tribeca Film Festival premiere

Solution

- Deployed globally distributed AWS cloud infrastructure with NVIDIA containers, optimized character blueprint replication, and custom FMOD modules.
- 16-camera Optitrack system with real-time facial capture
- Built robust networking architecture using Photon and PUNRPC, featuring virtual lobby system and synchronized performance space,

Impact

- First global VR theater with live audiences across 4 continents
- Professional-grade performance streaming at Tribeca Film Festival
- Established new framework for distributed theatrical performances, bridging physical and virtual audience experiences

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Technical Expertise

Programming

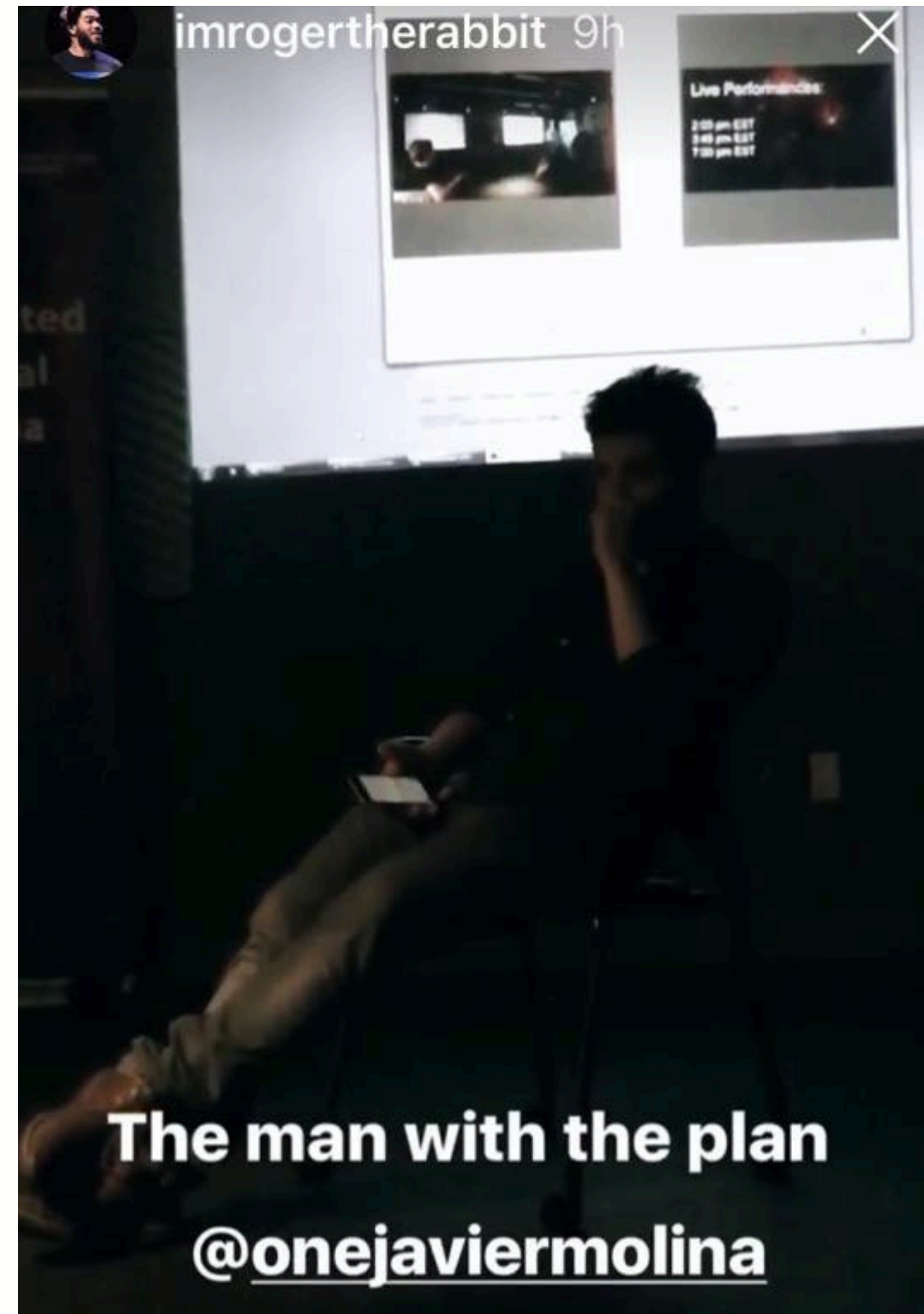
- C++, Python, Blueprints
- QT 6.8, Visual Studio

Motion Capture

- Vicon, OptiTrack, Xsens, Stretch Sense
- Real-time data streaming
- Multi-system integration and Networking
- Video Reference analysis and parsing
- Performance Direction and Project Management

Game Engines and Tools

- Unreal Engine 5
- Maya, Motion Builder, Iclone8
- Custom pipeline tools using QT



The man with the plan

@onejaviermolina



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Thank you

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