Bradley Newman

I'm a versatile Technical Artist with a rich background in video game development and XR research. I can do a bit of everything, and enjoy making an impact in multiple areas, as well as taking the initiative to solve challenges. I excel at streamlining art pipelines, optimization, and prototyping. From leading the pipeline for a cross-platform MMO, to pioneering XR applications for psychological therapy, my journey reflects a commitment to innovation and creativity.

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Experience

MindTrust
Technical Artist   Aug 2024 - Present
- Fullscreen shader post processing FX using the Unity 6 Scriptable Render Pipeline and Render Graph.

Career Break, Des Moines, IA   Mar 2023 - Dec 2023
Professional Development
- After a mass layoff I took a break, but continued my professional development by creating a Maya to Unity asset pipeline example, a Substance Designer example, and sharpening my VFX skills in Unity URP

Age of Learning, Glendale, CA

Technical Artist   Feb 2020 - Feb 2023
- Spearheaded the art pipeline development for a cross-platform educational MMO named Adventure Academy, by developing automation tools and asset management processes from Maya to Unity, resulting in streamlined workflows and increased efficiency.
- Created reusable character rigs, shaders, animation systems, and store UI for a large library of pets players could adopt, increasing average time per player per week by 70 mins, and average weekly visits from 6.5 to 9.5 times.
- Worked with a small team to leverage a library of pets and create a Pokémon-style prototype featuring trivia and pet adoption mechanics. This prototype evolved into the core strategic direction for the product.
- Led performance profiling efforts across desktop and mobile platforms. Implemented memory and framerate optimizations that reduced memory requirements by 210 mb. This resulted in fewer crashes and expanded our minimum specification support to enable more players to install the app.
- Engineered Mobile Optimized Shaders and Uber shaders, optimizing graphical performance across various devices, and enhancing visual fidelity.
- Collaborated closely with Creative and Art Director to ensure the delivery of high-quality content meeting stringent performance requirements, contributing to enhanced player satisfaction.
- Mentored junior artists on best practices for creating optimized assets, addressing technical challenges, and fostering a culture of continuous improvement, resulting in a more proficient and cohesive team.
- Conducted training sessions for designers on prefab best practices and level building techniques, as well as engineers on profiling methodologies, leading to improved cross-disciplinary collaboration and project outcomes.
- Defined and standardized pipelines for art outsourcing, coordinating with internal and external producers, ensuring consistent quality and adherence to technical specifications.

Visible Things, Los Angeles, CA
Freelance Technical Artist, Software Engineer   Sep 2019 - Feb 2020
- Engineered a tablet UI for video selection and playing back 360 videos on a Pico VR headset.
- Automated the Bluetooth connection between the headset and tablet.

RareFaction Interactive, Los Angeles, CA
Co-Founder, Technical Artist, Designer   May 2016 – Mar 2019
- Fujii
  - Streamlined the art pipeline for the mobile VR game Fujii to automate asset creation / exporting.
  - Created animation blend trees and C# scripted behaviors for NPCs. Modeled optimized environments.
  - Implemented targeted optimizations to minimize draw calls, generate LODs, and execute custom culling techniques.
  - Collaborated on prototypes for levels and interactive musical plants

- VR Badminton
  - Played an instrumental role in the development of a [VR Badminton game for a Malibu Rum promotion](#) by prototyping mechanics, creating the majority of the immersive environment, encompassing lighting, water effects, plant life, fish animations, and post-processing effects.
- VR Interactive Music
  - Created virtual objects that could be thrown and broken into pieces which then fell and played sounds synced to musical beats, allowing users to craft experimental physics based compositions.
  - Implemented a voice sampler feature, enabling recording and playback of synchronized singing performances, enriching user engagement and musical creativity.
- VR Brain MRI Editing
  - Collaborated on [a VR app for visualizing and editing MRI brain scans](#) of Alzheimer's patients to accelerate understanding and analysis of medical data.
  - Designed and implemented interactive mechanics for visualizing 2D cross sections as 3D layers, streamlining data analysis and improving user efficiency in data editing.
- VR Architectural Walkthroughs
  - Developed a [visualization of trade show booths](#) enabling clients to teleport around the space, aiding efficient design evaluation by reducing the need for physical prototypes.

Business Development
Technical Artist, Designer, Los Angeles, CA   Jan 2016 – May 2016
- Networked and developed business relationships with clients.
- Researched new technologies and sharpened technical skills.

USC School of Cinematic Arts - Worldbuilding Media Lab, Los Angeles, CA
Senior Research Associate   Jan 2013 – Dec 2015
- Led a team of students in the [exploration of interactive narrative techniques within VR / AR environments](#), resulting in the creation of various immersive storytelling experiences inspired by the book *Leviathan*.
- Integrated large-scale motion capture systems to develop interactive VR / AR narratives where users could walk aboard the Leviathan ship and interact with physical props, enhancing user engagement and interaction.
- Combined multiple forms of technology to enable the Leviathan whale and other creatures to interact with real-world environments and a crowd of users. Contributed to the modeling, texturing, and shading of the creatures.
- Collaborated with industry professionals to refine research for showcase at CES and the Sundance New Frontier exhibition, resulting in positive reception and recognition from industry leaders.

USC Institute for Creative Technologies, Los Angeles, CA
Technical Artist, Designer, and Administrator   May 2008 – Dec 2012
- VR Therapy
  - Helped pioneer the use of [VR simulations for the treatment of PTSD](#), reducing the number of therapy sessions patients required to see improvements in symptoms.
  - Contributed to the modeling, texturing, animation, and effects to prototype a city with NPCs, vehicles, and a driving simulation, which allowed clinicians to gather initial data on efficacy and secure funding to expand the research.
  - Managed a 9-person development team, ensuring project alignment and timely delivery of releases to clinicians.
  - Designed features to trigger audio and visual effects, NPC interactions, and lighting for therapeutic effectiveness.
  - Streamlined pipeline development through the creation of scripts and custom exporters, optimizing workflow efficiency and reducing production time.
- XR Display Research
  - Worked on research to leverage low-cost cell phone components to [create high-quality affordable Head Mounted Displays](#). This research directly inspired the Oculus Rift prototype.
- Motor Rehab
  - Prototyped a [motion-tracked game for motor rehabilitation](#) to gamify therapy and make it more fun and engaging.

Skills

C#, Python, Shaders, PyMel, PyQt, Unity, Maya, Substance Designer, Photoshop, Art Pipeline, Tools, Profiling, Optimization, Mobile, FX, Modeling, Rigging, Animation, VR, AR, XR, Technical Writing

Education

University of Southern California
Masters
Interactive Media

Iowa State University
Bachelors
Fine Arts