

Jeevarathinam Senthilkumar

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Extended Reality Portfolio: <https://sjeevarathinam29.wixsite.com/ar-portfolio> |

ArtStation Portfolio: <https://www.artstation.com/jsenthilkum> |

Lighting Portfolio: <https://sjeevarathinam29.wixsite.com/portfolio>

PROFESSIONAL SUMMARY

Dynamic, creative, and ambitious Systems Engineering Graduate acknowledged for strong object-oriented programming, user-centered design, research, decision-making, and problem-solving skills, with a passion for the Development of Asset in the 3D Virtual space.

TECHNICAL EXPERTISE

Software: Unity 3D, Autodesk Maya, Zbrush, Substance Painter, Photoshop, Premiere Pro, MS Visual Studio

Programming: C#, SQL

Skills: Modeling, Texture Painting, Rigging, Animation, Lighting, Rendering

Wearable Devices: Oculus Quest, Microsoft HoloLens, HTC Vive, ODG R7, VUZIX Blade

Cross-Platform Development: Universal Windows Platform, Android, iOS, and Windows

CORE COMPETENCIES

- Unity 3D/Content Development
- User-centered Design
- Realtime Motion Capture
- Teamwork & Leadership
- Virtual & Augmented Reality
- Character Rigging
- Decision Making/Detail-orientation
- Excellent Oral & Written Communication
- Object-oriented Programming
- Innovative Research
- Customer Service & Relationships
- Continuous Improvement/Learning

WORK EXPERIENCE

Software Developer Intern | ICURO, Santa Clara, CA

June 2022 - Present

- Designed, developed, tested, and deployed HoloLens application using Unity3D, Barracuda, MRTK API, and C#
- Analyzed different alternatives to integrate various machine learning models to run on a variety of scenarios across the different windows machine learning API.
- Tested windows machine learning MNIST application on HoloLens device.
- Integrated azure computer vision API to detect objects from the images.
- Deployed a machine learning model for offline use on the universal windows platform.
- Created an application that integrates a machine learning model in run time with frame per second images generated from HoloLens camera.

Unity Developer - Volunteer | KCI-Media7

January 2022 – August 2022

- Developed user authentication for sign up and sign in by connecting Amazon Web Services
- Created and maintained user management tools for Amazon Cognito pool
- Developed and deployed image and object recognition application using Vuforia in Unity for different platforms.
- Created an application based on the design of assembly and disassembly concept to interact with virtual automotive parts in the HoloLens device.

Research Assistant | UTEP El Paso, TX

September 2018 – December 2021

- Constructed a **high-poly 3D character model** and rigged from head to foot using Maya for a virtual assistant project.
- Integrated **dynamic bones** and utilized a single material with all textures to enhance model performance during VR application runtime.
- Conducted experiment on **motion capture** using unity to record and create an animation.
- Performed research on Integrating Deep Learning and Augmented Reality to Detect Pneumonia using Chest X-Ray images.
- Implemented an application with Image tracking and object tracking using AR Foundation and AR Core for Android devices.
- Investigated methods to improve the Quality of Construction for Intelligent Construction Technologies using BIM.
- Constructed an entire room environment, mobile device components creation, UV mapping, and texturing using both Maya and Substance Painter.
- Formulated materials by setting up Virtual Environments for AR and VR as a course for the Systems Engineering department, UTEP.
- Lectured 6-week course on AR and VR for graduate students to develop an application and trained High school students regarding the basics of Augmented Reality and Virtual Reality.
- Created high-quality gaming assets that were consistent with the style of the game while being optimized for both Mobile and head-mounted devices.

Key Accomplishments:

- Contributed to the development of a **Modeling and Simulation proposal** that received a **grant of \$1.36 Million**.
- Co-author for the paper entitled 'Embedding Computer Simulation-Based Classroom Training Activities to Enhance the Learning Experience for Manufacturing Systems'.

Web Developer/Graphic Designer | AMYPO TECHNOLOGIES PVT LTD, India

August 2016 – December 2017

- Tested the developed android application and web application in the firm.
- Converted the static portfolio page of the firm's website to a dynamic and responsive page.
- Led a team of artists in the production of engaging, interactive, and informative content for clients.
- Analyzed content and collaborated with engineers to create an optimal graphical approach to visualize 3D content more realistic in runtime applications.
- Designed and modeled various environment and concept assets, ensuring that all projects were completed promptly.

EDUCATION

- Master of Science in Systems Engineering (STEM), GPA: 3.91/4 | University of Texas at El Paso (UTEP), El Paso, TX December 2021
- Bachelor of Technology in Information Technology | Bannari Amman Institute of Technology (BIT), Tamil Nadu, India