

PEGAH NASERIFAR

Senior Technical Artist | Real-Time 3D Systems, Procedural Generation & Rendering Pipelines

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EXPERIENCE

Microsoft — Senior Technical Artist

Dec 2022 – Feb 2026

- Designed and implemented scalable environment systems for real-time XR experiences, including real-time 3D visualization systems for interactive user-facing experiences, balancing procedural generation, visual quality, and runtime performance.
- Optimized real-time rendering pipelines, managing GPU memory budgets, shader complexity, lighting strategies, and performance constraints across XR platforms.
- Built artist-friendly tooling and procedural workflows for environment creation at scale using Blender, Unity, and Unreal Engine, improving iteration speed, consistency, and maintainability.
- Developed procedural approaches to environment composition, enabling dynamic adaptation based on performance and platform constraints.
- Utilized RenderDoc and Unity Profiler for visual debugging, performance profiling, GPU optimization, and XR performance optimization across platforms.
- Collaborated with software engineers to integrate 3D environment systems into real-time rendering and scene reconstruction pipelines, ensuring scalability and runtime efficiency.

Pratt Institute — Visiting Lecturer, 3D Lighting & Rendering

Spring 2025

- Taught advanced lighting and rendering concepts with an emphasis on real-time workflows, visual quality, and performance considerations.

The Mill NY — FX / CG Artist

Jul 2018 – Dec 2022

- Built complex FX and simulation systems for high-end visual effects projects using Houdini and Maya.
- Solved technically constrained visual problems in collaboration with supervisors and production teams, balancing creative intent with feasibility, performance, and delivery timelines.
- Applied procedural thinking and optimization strategies to ensure visual consistency and production efficiency.

Aftab Honar Afarin Institute — 3D Generalist Artist

Jan 2013 – Oct 2014

- Created 3D modeling and animation, built and tested animation tools, workflows, and internal pipelines using C++ scripting to support production needs.

EDUCATION

Savannah College of Art and Design (SCAD) — M.F.A., Visual Effects

- **Thesis:** Designed a physically-based procedural simulation system with parameterized controls, optimized for real-time performance constraints and PBR shading accuracy.

Brunel University, UK — M.Sc., Multimedia & 3D Technology

Islamic Azad University, Iran — B.Sc., Computer Science

SKILLS

Real-time Graphics & Engines: Unity, Unreal Engine, Blender, real-time rendering, XR performance optimization

Graphics Systems & Optimization: Rendering pipelines, rendering performance, visual debugging, GPU optimization, RenderDoc, Unity Profiler, GPU-conscious workflows

Procedural: Houdini (VEX), procedural environment generation, parameterized tool development, physically-based simulation systems

Rendering & Look Development: Lighting, shader development, shader-driven materials, PBR (Physically-Based Rendering), Arnold, Mantra

Scripting & Tooling: Python (scripting), Git (collaborative development)