## Contact

919.813.8140 (Mobile)
chris@koderz.io

www.linkedin.com/in/chris-a-
conway (LinkedIn)

## Top Skills

Shaders
Procedural Generation
Stereo Rendering

## Languages

English (Native or Bilingual)

## Certifications

Part 107 - Small Unmanned Aircraft
System

## Honors-Awards

DeVry University Dean's List

Wake Technical Community College
Dean's List

# Chris Conway

Senior Rendering Engineer | Unreal Engine 5 Expert | Niagara &
Runtime Systems | Nanite, Lumen, Procedural Geometry
Raleigh-Durham-Chapel Hill Area

## Summary

Senior Rendering Engineer with a deep focus on Unreal Engine
5, specializing in real-time rendering, procedural mesh systems,
and performance-critical engine tools. I've contributed directly to
Epic Games as a contract engineer on the Niagara team, and am
the creator of the Realtime Mesh Component plugin — a high-
performance runtime replacement for ProceduralMeshComponent.

At Deck Nine Games, I led the mid-project adoption of Nanite and
Lumen for *Life Is Strange: Double Exposure*, optimizing complex
VFX and lighting scenarios for next-gen consoles and PC.

My passion lies in solving core engine challenges, building tools
for runtime content generation, and pushing what's possible with
dynamic geometry in UE5.

Specialties: Unreal Engine 5, C++, HLSL, Niagara, Nanite, Lumen,
Procedural Geometry, Shader Optimization, Runtime Mesh Systems.

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## Experience

Deck Nine Games
3 years 4 months

Senior Rendering Engineer
July 2024 - Present (1 year 5 months)

- Leading rendering systems development on an unannounced UE5 project,
with a focus on more efficient and effective usage of Nanite and Lumen based
on prior production experience.
- Driving forward next-gen rendering workflows and tooling improvements
based on lessons from shipping Life Is Strange: Double Exposure.
- Providing architectural feedback and technical direction for runtime lighting,
VFX, and content optimization strategies.

Rendering Engineer

August 2022 - June 2024 (1 year 11 months)
Raleigh-Durham-Chapel Hill Area

- Shipped Life Is Strange: Double Exposure across PC, Xbox Series X|S, and PS5.
- Spearheaded mid-production adoption of Nanite and Lumen in UE5, including rendering pipeline setup, developer onboarding, and in-engine validation.
- Rewrote and optimized several gameplay powers systems (e.g., Shift/Pulse) for better stability and performance.
- Profiled and optimized complex VFX and lighting scenes to meet performance budgets across platforms.

## TriAxis Games
Owner and Freelance Software Developer
March 2014 - Present (11 years 9 months)
Raleigh-Durham-Chapel Hill Area

Founder of a one-person Unreal Engine-focused consultancy and plugin development studio. Through TriAxis Games, I have delivered technical solutions to indie teams, AAA studios, and Fortune 500 companies.

- Unreal Engine Plugin Development

-- Creator and maintainer of [Realtime Mesh Component (RMC)], a high-performance UE4/UE5 plugin that enables procedural mesh generation at runtime with full engine rendering support.
-- Originally conceived as a faster, more flexible replacement for ProceduralMeshComponent, RMC has grown to support dynamic LODs, Nanite integration, mesh streaming, and runtime geometry tools.
-- Used by individual developers, simulation companies, and large-scale production teams to power tools, games, and visualization applications.
-- Developer of [StencilWorks], a plugin focused on post-process stencil effects, including high-quality outline rendering, upscaling, temporal accumulation, and screen-space analysis for effects like edge-aware distance fields.

- Contract Work

-- Delivered contract Unreal Engine development across procedural content generation, runtime gameplay systems, rendering optimization, and custom engine features.

-- Often brought on to diagnose complex rendering or system-level issues, or to build runtime tools not supported by the editor-based workflows.

Epic Games
Contract Engine Tools Programmer
January 2021 - July 2022 (1 year 7 months)
Raleigh-Durham-Chapel Hill Area

Worked on Unreal Engine's Niagara VFX team, building tools and features used in UE4, UE5, and Fortnite.

- Implemented GPU ribbon emitter rendering, enabling ribbons generated through GPU emitters to render correctly.
- Extended Niagara ribbons with new features: procedural shapes, dynamic tessellation, stable UV layouts, and train-track-style strip behavior.
- Built the first version of Niagara Summary View, simplifying editing of complex emitters by exposing only high-level controls.
- Optimized Niagara performance with improvements like script compression and spline LUT generation in the Spline Data Interface.
- Improved Niagara Debug Data Interface with new visualization modes and extended shape support.
- Contributed to the Cascade to Niagara conversion tool, improving legacy emitter compatibility and migration quality.

Acer
Contract Developer
June 2020 - February 2021 (9 months)

Built a custom 3D model viewer for Acer's ConceptD laptops, which featured glasses-free 3D displays.

- Developed the full viewer application in Unreal Engine 4, optimized for real-time rendering on novel hardware.
- Built a suite of CAD/DCC plugins for tools like Maya, Rhino, and Inventor to enable direct model export into the viewer.
- Helped define and implement the stereoscopic display pipeline to leverage the unique 3D display tech in real time.

AI.Reverie
Senior Software Developer
January 2017 - July 2018 (1 year 7 months)
Raleigh-Durham, North Carolina Area

Built large-scale procedural world generation tools in Unreal Engine 4 for synthetic training data production.

- Implemented terrain generation from real-world satellite and DEM data (e.g., USGS) using GDAL and UE4 pipelines.
- Developed a custom procedural foliage system capable of distributed generation of massive environments.
- Created tools for procedural building generation (interiors and exteriors), including structural variation, trim, and clutter.
- Built support for distributed task execution using Xoreax XGE, enabling efficient parallel generation of terrain tiles and assets.

Career Odyssey
Co Owner and Lead Software Developer
2012 - 2015 (3 years)
Holly Springs, NC

As Co-Owner and Lead Developer, collaborated on the early development and administration of a web service prototype targeting the job placement industry, to include the creation of MySQL databases, development of SQL scripts, ASP.Net web pages, and JavaScript and C# middleware routines.

Triangle Restoration & Paint Company, Inc.
Contract Web Developer
2011 - 2011 (less than a year)
Raleigh, NC

Collaborated with the management team of this local-area disaster response and property restoration company to successfully create and launch a new corporate website within a 30-day timeframe.

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# Education

DeVry University
Bachelor's Degree, Game and Simulation Programming · (2017)

Wake Technical Community College
Associate's Degree, Computer Programming · (2013)

TechShop Raleigh-Durham

· (2011 - 2013)