

Strengths

C++
Tools Architecture

Unreal Engine 5
Tools Development

Unreal PCG
Unreal Automation Tool

Dynamic Mesh Systems
Unreal Plugins

Work Experience

Splash Damage

Game Content Tools

Sep 2021 - Present

- » Designed, implemented, and maintained custom tool solutions for procedural content generation (PCG) within Unreal Engine 5.
 - Optimizing the workflow for artists and developers working with large-scale procedural content.
 - Spearheaded the creation of tools to streamline PCG pipeline integration, improving efficiency and scalability for procedural workflows.
- » Developed and integrated a JIRA-based bug reporting system directly within the Unreal Editor.
 - Automated the bug submission process and ensuring a seamless link between development and bug-tracking systems.
 - Designed custom interfaces for real-time bug reporting, which improved issue tracking and resolution time by streamlining communication between developers and QA teams.
- » Extended the Dynamic Mesh system to enable rapid creation and manipulation of custom meshes for quick blockout purposes.
 - This tool allowed level designers and artists to prototype environments faster, reducing iteration time and improving workflow efficiency.
 - Implemented intuitive UI components to facilitate the easy creation and customization of dynamic meshes.
- » Played a key role in validating and migrating data systems during the transition to Unreal Engine 5.1.
 - Ensured compatibility and stability of legacy tools while adopting new features and enhancements.
 - Developed validators and systems to ensure data integrity and smooth tool operation during the upgrade, proactively identifying and addressing potential issues in the pipeline.

Engine:

Unreal Engine 5

Team Size:

100+

Game Development

Project Astrid

Game Content Tools

Splash Damage

- » Designed, implemented, and maintained a custom suite of world building tools focused around PCG.
- » Optimized studio PCG implementation for large scale foliage and clutter placement using a query based filtering system.

Engine:

Unreal Engine 5

Team Size:

100+

Unreleased Project

Game Content Tools

Splash Damage

- » Designed and implemented a custom extension to Unreal Engine 5's Geometry Scripting system, enabling designers and artists to quickly create dynamic geometry primitives for fast-paced development workflows.
- » Streamlined the process of generating complex shapes and forms, significantly reducing the need for manual mesh manipulation and speeding up iteration times.

Engine:

Unreal Engine 4

Team Size:

100+

Studio Team

Game Content Tools

Splash Damage

- » Developed and integrated an OAuth2-based HTTP client within the Unreal Engine Editor, enabling secure, authenticated access to protected APIs for editor tools and systems.
- » Integrated the OAuth2 client with the JIRA Bug Reporting System, enabling secure and seamless bug reporting directly within the Unreal Engine Editor.

Engine:

Unreal Engine 5

Team Size:

4

Education

M.S. Interactive Technology, Software Development - May 2021

B.S. Computer Science + Mathematics - May 2019

Graduated SMU Cum Laude

**SMU Guildhall
Southern Methodist University**

LinkedIn ♦ **Github**

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