Bradley Padgett - Technical Artist
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EDUCATION

Texas A&M University | College of Architecture, College Station TX (2019 – 2023)

Visualization Major - Bachelor of Science

MENTORSHIPS

Epic Games (2022 – 2023)

Mentored by an Epic Games Technical Artist to develop lightweight principled shaders modularized into material functions with quality/platform switches for reusability and cleanliness.

WORK EXPERIENCE

LIVE Lab | Educational Game Development and Research Studio (Mar 2022 - May 2024)

- Partnered with Shell to create interactive digital facility representations through on-site client collaboration.
- Collaborated with A&M Forestry Service on interactive demonstrations of deforestation and flood stages.
- Created and documented shader pipelines/tools in aiding workflows for development & research teams.

RECENT INDEPENDENT PROJECTS (2022 – Current)

Stack | stackplugin.com

Developed an Unreal Engine plugin enabling technical designers to customize workflows, requiring in-depth research into Unreal's architecture to ensure flexibility and efficiency.

Painterly Stylized Shaders

Developed Editor Utility tools for bulk asset conversion to principled shaders, geometry-based asset cleanup, and reference filtering to improve project organization; optimized material quality switches by reducing shader instructions and texture samples.

Niagara Sailing FX

Created advanced gameplay and visual systems in Unreal Engine by leveraging Niagara's Grid2D Simulation Stages to localize Rigid Mesh Collision Query data onto Render Targets for trail effects in shaders (sand, water, etc.); integrated Gerstner waves in Material Parameter Collections for wave-height sampling; and developed sailing/drifting gameplay mechanics with Niagara-driven visual player feedback.

Lantern Festival w/ PCG

Developed Unreal Engine tools using Procedural Content Generation for rapid environment iteration, integrating Niagara FX for dynamic foliage and lantern control, and leveraging Substrate's BSDF material system to create advanced MegaLight assets.

AWS Demo | C++ Dedicated Server

Built a scalable multiplayer system with AWS GameLift, Lambda, and DynamoDB to support reliable matchmaking, authentication, and persistent player data, enhancing performance and player experience.

COMMUNITY INVOLVEMENT

Judge for Chillennium Game Jam at Texas A&M (2024)

Served as a judge with industry professionals for the world's largest student-run game competition; assessed game on creativity, design, and technical execution while providing critique to student developers.

Child Advocacy Game for Scotty's House (2020)

Collaborated with a non-profit and Brazos County Courthouse to design an educational courtroom simulation game for children; led project management, scripting, lighting, and repository management.