

# Macrae Smith

Graphics, Gameplay, and Tools Programmer

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## SUMMARY

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Graphics, Gameplay, and Tools programmer with proficiency in graphics and D3D12 rendering API, Unreal Engine 5, procedural generation, and gameplay programming. Skilled in C++ and engine architecture, with experience contributing to my own custom game engine.

## SKILLS

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**Languages & Tools:** C++, C#, HLSL, Verse, D3D11, D3D12 | Unreal Engine 5, UEFN, Unity, Maya, Substance, ZBrush

**Methodologies & Concepts:** Graphics, Technical Art, Procedural Generation, Physics, Networking, Multi-Threading, Virtual Reality, Gameplay AI behavior

## PROFESSIONAL EXPERIENCE

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**The Devhouse Agency** | Game Developer | Dallas, Texas May 2024 – October 2024

- Developed single-player and networked multiplayer gameplay for multiple projects in UE5, UEFN, and Unity.
- Gave technical consultation to stakeholders and ensured product quality on mobile and PC platforms.

**Kintsugi Interactive** | Co-Owner, Producer, and Gameplay Engineer | Remote July 2023 – September 2024

- Started an indie studio across art, programming, and design disciplines and managed Agile production meetings.
- Designed and implemented gameplay for a 3D physics game in Unity.

**Soul Flare** | Graphics Programmer and Technical Artist | Remote February 2024 – August 2024

- Developed procedural animation system in Unreal Engine 5 for a 3D narrative game.
- Created custom VFX and integrated with gameplay.

## SHIPPED TITLES

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**Kila: Hourbound** | Lead Programmer | SMU Guildhall GameLab | Team Size: 26 May 2025 – December 2025

- Managed our 7 programmers and made technical presentations to stakeholders throughout production of a 3D action platformer game in Unreal Engine 5.
- Helped design and architect a melee combat system with dynamic animations and VFX.
- Developed puzzles, camera, and audio tools while maintaining game optimization and Steam build requirements.

**HardDriverz** | Gameplay and Tools Programmer | SMU Guildhall GameLab | Team Size: 54 February 2025 – May 2025

- Developed 3D dynamic camera system and VFX system for an arcade racer in Unreal Engine 5.
- Led asset integration and performance profiling and worked closely with artists and level designers.
- Assisted with build pipeline, source control, and bug testing ensuring game stability.

**Get There!** | Gameplay Programmer | The Devhouse Agency May 2024 – July 2024

- Designed and programmed geography-based puzzle adventure in Unreal Fortnite Editor.
- Optimized gameplay in response to *Fortnite's* memory requirements.

## PERSONAL PROJECTS

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**C++ Engine** August 2024 – May 2026

- Solo-developed a 2D and 3D C++ engine from the ground up with primitive physics, collisions, and raycasting.
- Built D3D11 and D3D12 rendering pipelines and systems for event dispatching, multi-threading, controller and keyboard input, developer console, multiplayer networking, and byte-level serialization utilities.

## EDUCATION

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**SMU Guildhall** Dallas, TX

*Master of Interactive Technology, Specialization in Software Development*

May 2026

**Samford University**

*Bachelor of Science, 3D Animation and Game Design, Minor in Computer Science*

Birmingham, AL

December 2023