

# JARED ARNOLD

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## Summary

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Unity-focused software engineer with 3 years of professional experience shipping 20+ Unity applications, including AR and training systems. Strong in C# programming, rendering/shaders, and building high-quality interactive applications from scratch. Seeking Unity or real-time 3D roles.

## Skills

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### Technologies

- Unity Development
- Shader/HLSL
- iOS/Android/Mobile Development
- Blender

### Languages

- C#, C++, React, Python, and HTML/CSS/JS

## Experience

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Index AR Solutions

Williamsburg, VA

**Application Engineer**

02/2023 – Current

### Unity Game Engine Specialist

- Developed and deployed interactive 2D/3D applications using Unity for PC and mobile platforms.
- Introduced and implemented advanced rendering optimization techniques, including GPU instancing, which reduced draw calls by up to 99% and enabled scenes to support 10x more objects without impacting frame rate.
- Developed software solutions for augmented reality applications.
- Specialized in creating custom shaders using Unity's Shader Graph and HLSL to achieve complex visual effects and optimized rendering pipelines.

### Project Lead

- Directed the design and delivery of multiple Unity-based training applications for multiple major clients, overseeing technical architecture, project timelines, and cross-functional collaboration to ensure high quality, on-time releases.
- Developed over 20 Unity-based applications within a 3-year period, including 15 solo projects, 6 of which were built entirely from scratch, without leveraging the company's existing framework.

### E-Book Framework Developer

- Built an export pipeline from Adobe Indesign to a React-based, interactive web eBook, converting layouts and styles into responsive HTML/CSS.
- Ensured program compatibility with Apple's Xcode environment, enabling successful packaging and deployment for iOS devices.

## Education

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University of Virginia

Charlottesville, VA

**Bachelor of Science in Computer Science**

December 2022

University of France-Comté

Besançon, France

**Ph.D. Researcher Assistant**

Summer 2022

*Shadowed research in advanced computing and physics disciplines, gaining exposure to:*

- CPU microarchitecture design and performance analysis
- Atomic clock technology and precision timekeeping systems
- Quantum computing principles and experimental setups