

JOSEPH FORTE

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www.JoeForte.net

Troy, NY

OBJECTIVE

Make great, visually impressive, games with a dedicated group of professional game developers.

EDUCATION

Master of Science in Computer Science with minor in Mathematics

University of Minnesota–College of Science and Engineering

May 2011

Minneapolis, MN

Bachelor of Science in Computer Science

University of Minnesota–Institute of Technology

December 2008

Minneapolis, MN

RELEVANT PROFESSIONAL EXPERIENCE

Graphics Programmer

Vicarious Visions

February 2012–Present

Menands, NY

Alchemy

Cross-platform game engine

February 2012–Present

- Designed a shader language supporting modern GPU features that is translated and compiled to compatible binaries on PlayStation 4, Xbox One, PlayStation 3, Xbox 360, Wii U, and iOS.
- Implemented generic content streaming runtime and workflow for current and future projects.
- Created artist and designer facing tools for analyzing and optimizing memory usage of levels and characters.

Skylanders: SuperChargers

PlayStation 4, Xbox One, PlayStation 3, Xbox 360, Wii U, iOS

September 2015

- Designed rendering architecture, from scene representation to GPU submission, optimized for multi-core platforms.
- Implemented common abstraction layer interfaces used by the renderer for DirectX, OpenGL, Gnm, and Metal.

Skylanders: Trap Team

iOS, Android

October 2014

- Implemented mobile renderer approximating the full console renderer with minimal content changes.
- Implemented scalable rendering features, tuned at runtime based on the mobile device, including geometry LOD, shader LOD, material complexity, and post-processing.

Skylanders: Swap Force

PlayStation 4, Xbox One, PlayStation 3, Xbox 360, Wii U

October 2013

- Profiled and optimized PlayStation 3, Xbox 360, and Wii U to achieve an average of 30 FPS across all levels.
- Created designer driven tools for identifying and optimizing GPU performance on target platforms.

Skylanders: Battlegrounds

iOS, Android

November 2012

- Implemented renderer for Android and iOS that scaled from low-end phones to high performance tablets.

Skylanders: Lost Islands

iOS, Android

October 2012

- Ported to Android phones and tablets.

Graphics Programmer

Google Summer of Code 2010–Crystal Space 3D

May–August 2010

www.crystalspace3d.org

- Implemented and documented a deferred renderer for the Crystal Space 3D engine using C++, Cg, and OpenGL.
- Created an interactive application that demonstrated the deferred renderer in a real world environment.

HIGHLIGHTED TECHNICAL SKILLS

- Advanced in C and C++
- Highly proficient in HLSL and C#
- Highly proficient with OpenGL, DirectX, and Metal
- Proficient in GLSL, Python, Java, and Lisp
- Experience developing on PlayStation 4, Xbox 360, PlayStation 3, Wii U, iOS, and Android