

Okka Kyaw

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http://okkak.com

WORK EXPERIENCE

“Star Citizen” & “Squadron 42”, Space combat/exploration MMO and single player story-driven campaign

Foundry 42, Wilmslow, Cheshire, UK

Senior Graphics Programmer

Jun 2017 – present

Graphics Programmer

Oct 2015 – Jun 2017

Cloud Imperium Games, Santa Monica, CA, USA

Graphics Programmer

Apr 2014 – Oct 2015

Junior Graphics Programmer

Oct 2013 – Apr 2014

- Implemented a material blending system to support creation of materials that become worn/dirty over time
- Wrote a procedural lens flare system to simulate lens optics and reduce artist workloads
- Wrote a procedural asteroid system that can deterministically generate disjoint areas of solar system scale asteroid fields on-demand
- Wrote a system that captures, convolves, and compresses environment probes at runtime for procedurally generated environments
- Mentored coworkers, providing guidance and feedback on their tasks

“Project Spark”, 3D game maker video game

Microsoft Studios, Redmond, WA, USA

Software Development Engineer Intern

May – Nov 2011

- Implemented the ability to upload, download, rate, and moderate UGC (User Generated Content)
- Added functionality for linking UGC levels together to support player creation of branching worlds/storylines
- Added functionality for recording, playback, and serialization of custom audio
- Integrated UI middleware solutions into the game engine to compare their performance and workflow

“Gnomads”, Side-scrolling platformer/action RPG with construction mechanics

Microsoft Studios, Redmond, WA, USA

Software Development Engineer/Game Design Intern

Jun – Aug 2010

- Worked with nine other interns, pitching and producing a vertical slice over a period of eight weeks
- Implemented the enemy wave and spawning system, event triggers, and other gameplay features
- Wrote a GUI-based event system to assist designers with level design

SKILLS

Programming languages: C++, C#, JavaScript, Haskell, ActionScript, Lisp, Prolog

APIs, Engines, Libraries: DirectX, OpenGL, Lumberyard, CryEngine, Unity, XNA

Development Tools: MS Visual Studio, Perforce, Team Foundation Server, SVN

EDUCATION

Rochester Institute of Technology, Rochester, NY

May 2013

M.S. in Computer Science

Thesis: “A Realistic Camera Model for Real-time Rendering”

Research Advisors: Joe Geigel, Reynold Bailey

Concentration in Computer Graphics and Visualization

Rochester Institute of Technology, Rochester, NY

Nov 2011

B.S. in Game Design and Development, Highest Honors

Minor in Japanese Language

MASTERS PROJECT

A Realistic Camera Model for Real-time Rendering

- Created a realistic camera model that more accurately simulates the output from a real camera
- Reproduces effects such as bokeh depth-of-field, lens aberrations, and long-exposure motion blur
- Written from scratch using C++, DirectX 11, and HLSL

RESEARCH EXPERIENCE

Rochester Institute of Technology, Rochester, NY

Sept – Oct 2013

Research Volunteer

- Updated the 3D model viewer from a previous research position to work with iOS 7
- Fixed the rendering algorithm to look accurate from any arbitrary device orientation, support additional anaglyph modes, and produce more stable results
- Updated the user interface to match iOS 7's UI guidelines

Rochester Institute of Technology, Rochester, NY

Mar – May 2011

Research Assistant

- Developed a 3D model viewer for iPad using Objective-C and OpenGL ES 2.0
- Rendered 3D models as phantograms (stereograms with perspective anamorphosis)

PUBLICATIONS

- Junxia Xu, Okka Kyaw, Dana Slambekova, Manjeet Rege, and Reynold Bailey, "Gaze-Con: A Gaze Controlled Application Framework", in Proceedings of International Association for Computer Information Systems Annual Conference (IACIS 2012).