Ian Dunn

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SKILLS & TOOLS

- **Graphics Industry Experience:** worked on Microsoft's DirectX team and Intel's game developer relations team. Created development tools for DX11 and DX12. Worked on profiling and metrics.

- **Technical Depth:** expert knowledge of C++, OpenGL, strong working knowledge of DirectX. Experience profiling both CPU and GPU performance. Have implemented a plethora of real-time graphics techniques including geometry clipmaps, deferred shading, reflection/refraction, particle systems, skinned animation.

- **Hobby Game Development:** since 2005, game prototyping and development from text-based games to open-world. Created and maintain a rendering and game engine, ionEngine. Exploration of procedural content generation.

Tools

C++ ▪ C ▪ DirectX 11 and 12 ▪ OpenGL ▪ GLSL & HLSL ▪ Raytracing/Raycasting/Raymarching ▪ Procedural Content Generation ▪ Profiling ▪ CUDA ▪ RenderDoc ▪ Git ▪ Mercurial ▪ OpenMPI ▪ Java ▪ PHP ▪ Bash/UNIX ▪ C#/.NET/WPF ▪ SQL ▪ PhysX ▪ Boost ▪ Python ▪ Javascript ▪ Web (HTML5+CSS3/jQuery/Jekyll+Sass/Node.js) ▪ LaTeX ▪ Visual Studio ▪ Adobe Creative Suite ▪ Cinema4D

EXPERIENCE

3D Graphics Performance Engineer — Intel
Graphics driver optimizations. September 2018-Present

Lecturer — Cal Poly
Taught courses and developed material for *Game Design*, *Systems Programming*, *Introduction to Computer Graphics*, *Advanced Rendering Techniques*, and *Real-Time 3D Computer Graphics Software*. January 2017-June 2018

Software Engineer Intern — Microsoft
Direct3D 12 team. Created MultiGPU Affinity Layer for Direct3D 12, tool for engine developers. Presented project results to GAB. June-December 2015

Game Software Engineer Intern — Intel
Generated C++ source from IntelGPA frame captures. Added Intel hardware metrics to open-source Renderdoc project. January-May 2015

SDET Intern — Microsoft
Software development, analysis, and research related to social media data and customer sentiment. Summer 2014

ICEX — Cal Poly
International Computer Engineering Experience - robotics research, exploring cisterns in Malta and Sicily. March 2013

Teaching Associate — Cal Poly
Instructor for *Systems Programming* class. Fall 2014

Research Assistant — Cal Poly
Volumetric visualization and surface reconstruction projects. Summer 2012. Summer 2013

EDUCATION

California Polytechnic State University
San Luis Obispo, CA (Graduated Fall 2016)
Computer Science MS, with distinction — GPA: 3.90
Software Engineering BS, summa cum laude — GPA: 3.88