Ian Dunn

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SKILLS & TOOLS

- **Graphics Experience:** Over 6 years of professional experience in computer graphics, as a software engineer and as an educator. Graphics driver performance team at Intel, previously worked on Microsoft's DirectX team and Intel's game developer relations team. Experience writing 3D applications and developing GPU driver optimizations.

- **Technical Depth:** Extensive knowledge of C++, OpenGL, and DirectX. Experience profiling both CPU and GPU performance. Implemented a variety 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 as part of my master's thesis.

Tools

C++ ▪ C ▪ DirectX 11 and 12 ▪ OpenGL ▪ GLSL & HLSL ▪ Raytracing ▪ Procedural Content Generation ▪ Profiling ▪ CUDA ▪ Git ▪ Mercurial ▪ Java ▪ Web (Flask, PHP, Node.js) ▪ Bash/UNIX ▪ SQL ▪ PhysX ▪ Boost ▪ Python ▪ Visual Studio ▪ Adobe Creative Suite ▪ Cinema4D

EXPERIENCE

3D Graphics Performance Engineer — Intel
Implemented GPU driver optimizations for games and other workloads. Performance analysis, debugging, and mentoring. 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 Renderdoc. 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