BRAD A. GRANTHAM

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OBJECTIVE

Contract or salaried position designing and implementing software for 3D hardware and/or 3D applications.

EDUCATION

Graduated 1992 from Virginia Tech with B.S. in Computer Science.

PROFESSIONAL EXPERIENCE

Senior Software Engineer, AMD/ATI, January 2008 – Present

- Designed, implemented interactive ray tracer using OpenCL
- Wrote tests, samples, and benchmarks for ATI GPUs on Linux and Windows including 10-bit display porting guide and test, volume rendering benchmark
- Worked on-site with ISVs and partners, analyzed ISV software, traced and analyzed OpenGL command streams, assisted with optimization and feature implementation

Senior Software Engineer, PalmSource (later Access Company), August 2006 – July 2007

- Development of embedded apps and frameworks on Linux using X Window System and GTK

OpenGL Software Engineer under contract, Rearden Studios, April 2006 – January 2007

- Designed and implemented API for GPU imaging operations including convolution and correlation using OpenGL fragment shaders, FBO, float texture on Microsoft Windows

Senior Software Engineer, Applications Engineering, Silicon Graphics, January 2002 – September 2005

- Wrote modularized, multithreaded, multichannel OpenGL and OpenML video player, demonstrated 3840×2160 playback with audio using 4 video devices and RAID, filed for patent
- Worked with ISVs, partners to improve features & performance on IRIX and Linux using OpenGL
- Wrote IRIX, Linux, Windows GL samples, benchmarks, tests; wrote whitepapers, presentations
- Ported ATI Sushi demo engine to proprietary UNIX system (IRIX)

OpenGL Software Engineer under contract, Zaxwerks, September 2000 – January 2002

- OpenGL and C++ under Windows NT and MacOS 8,9,X for Adobe After Effects plugin
- Added antialiasing, decal textures, reflection maps, per-pixel spotlights to OpenGL renderer

Senior Software Engineer, VA Linux Systems, April 1999 - December 2000

- Linux 3D technology lead - visited customers, tested & benchmarked OpenGL implementations
- Implemented portions of DRI-based OpenGL driver for 3D chipset

Member of Technical Staff, Silicon Graphics, June 1995 - April 1999

- Design & implementation for Fahrenheit Scene Graph, OpenGL Optimizer, Cosmo 3D, Performer
- IRIX and Microsoft Windows OpenGL programming
- Patent 6933941 describing an object-oriented 3D scene representation (Cosmo3D)

OTHER EXPERIENCE

Designed, implemented interactive multithreaded C++ ray tracer
Spoke in SIGGRAPH 2002-2004 *Performance OpenGL* courses
Wrote *ACTC* package to convert triangles to triangle strips; `http://plunk.org/~grantham/actc/`
Organized and moderated SIGGRAPH 2002 Panel *When Will Ray-Tracing Replace Rasterization?*
Spoke in SIGGRAPH 1997 - 2000 *Advanced Rendering Techniques with OpenGL* full-day courses.
Managed planning, cargo, events, and web site for 20-person desert camping group

SKILLS

OpenCL, C/C++, OpenGL including Shading Language, Pthreads, Boost, Linux administration, CVS, Subversion, Perforce, Microsoft Windows, X Window System, PowerPoint, Python, Cygwin