

Work Experience

Kinetics, a subsidiary of NCR Orlando, Florida January 2002 to Present

Software R&D Engineer (Jan '05 - Present)

- Primary developer of CUSS platform control software which implements an industry standard interface to device peripherals and coordinates resource sharing across multiple vendors' applications. Now deployed on over 3,000 airport kiosks nationwide.
- Co-designed bit-torrent like distribution scheme to push periodic updates out to kiosks in production, significantly reducing choke point bandwidth.
- Individually developed a Java version of our client/server transaction system (predates XML/WebServices) to support communication with legacy applications.

Software Developer (Jan '02 - Jan '05) - Part Time

- Wrote numerous internal development tools using MFC and recently C# (Windows Forms).
- Wrote interfaces for various peripheral devices including printers, barcode scanners, et al.
- Redesigned and optimized our multithreaded queuing application, reducing disk I/O by 75% and search complexity to $O(\log n)$ while maintaining zero completed transaction loss on interrupt.

UCF School of Film and Digital Media Orlando, Florida Summer 2003

Research Assistant / Shader & Tools Programmer

- Wrote skin and lighting shaders using RenderMan for "Only in Dreams", an animated short and fellow student's senior design project.
- Helped develop an XML-based production and rendering pipeline including:
 - Custom import/export plug-ins for both 3D Studio MAX and Maya
 - DirectX-based Material-binding GUI used to select/preview shaders
 - A batch rendering utility handling RIB generation and load balancing.

UCF Burnett Honors College Orlando, Florida Summer 2002, 2003, 2005

Teaching Assistant

- Teaching Assistant with Burnett Honors College Summer Institute, a computer science summer program for advanced high school students in the southeast.
- Co-taught intermediate recitation '02, '03 and an intro computer graphics course in '05.

Personal Special Projects

Liemandt Foundation – Hidden Agenda Game Development Contest

Team Lead / Client-Server Programmer Orlando, Florida August 2003 to June 2004

Won \$25,000 prize for design/development of MeChEM, an educational video game teaching middle school students the concepts of basic chemistry. Contributions included: overall game design, game client, game server/networking code, and 2.5D cutscene engine.

Academic Qualifications

University of Central Florida Orlando, Florida May 2005

Bachelor of Science in Computer Science with Honors

- National Merit Scholar, University Honors Program, Dean's List
- Concentrations in Computer Graphics and Physics

Computer SkillsProgramming Languages

C/C++ (6yr), Java (4yr), C# and ASP.NET (2yr), nVidia Cg, SQL, JavaScript/CSS, PHP, Perl

APIs and SDKs

Win32 and MFC, OpenGL, DirectX 9.0, 3D Studio MAX SDK, Maya SDK/MEL script, CORBA, J2ME

Extracurricular Activities and Honors

Association of Computing Machinery student member since 2004

UCF Programming Team - 3rd place (Team Typhoon 2004), 8th place (Team Tachyon 2005) - Southeast Regional ACM competition

Treasurer of Omega Phi Chapter of Phi Gamma Delta Fraternity 2003-2004