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Mike Hall

Objectives To apply my 20 years of experience in the design and implementation of system-level, multi-platform, distributed, server-based systems to all phases of the software development life cycle. I'm interested in pursuing my career in computer science as a Tech Lead or Software Architect for a large or mid-sized corporation in the Boston area.

Overview I have extensive knowledge of Win32 products and SDKs, protocols and APIs, particularly in the area of web-based services and applications. My strengths at the design level are in distributed server systems in the middle tier as well as the applications dealing with user configuration, feedback and control. I also have extensive experience with firmware integration in digital media hardware and handheld devices, such as cell phones and PDAs.

Operating Systems: Win32 (all versions back to 3.1), WinCE, Sun Solaris, Linux and HPUX.

APIs: Win32 SDKs, MFC, ATL, MAPI, MMIO, ASIO, DirectX, familiarity with MMC Plug-Ins and ISAPI Plug-Ins, Posix threading and synchronization mechanisms.

Interfaces: (D)COM, Memory Mapped File I/O, Win2K Clustering, Win32 Shell Extensions, Active Server Pages.

Protocols: HTTP, Named Pipes, FTP, SNA, TCP/IP, MIME, HLLAPI, IPC, RPC

Languages: C++, C, Java, VB Script, HTML, SQL, XML, PHP, Cold Fusion, ActionScript.

Tools: Visual Studio Products, all Macromedia and Adobe Products; Visual SourceSafe, ClearCase, InstallShield, Wise Installer, WinICE, dbx, and various bug tracking systems.

Experience 08/2005-present: Adobe Systems, Inc. (formerly Macromedia)

Developer Support, Flash Player SDK

Maintenance and documentation of issues related to the Flash player SDK, versions 6 and 7. Back-porting of security issues identified in more advanced versions of the player, with published documentation. Release management and distribution to customers.

OEM developer support: Assist in the identification and correction of specific platform issues as well as general core bugs in the Flash player 7 SDK. Ran conference calls with developers and other company representatives to resolve ongoing technical issues. Prominent customers included Sony, Archos (Germany), NEC, Panasonic, and Microsoft.

Software Development: a sockets-based remote debugging feature and monitoring application for the display of animation metrics. Comparison of animation performance between similar hardware platforms. Creation of an SDK-like wrapper around the Flash Lite 3.0 API, with documentation.

Organizational: Ran daily staff meetings, covering both technical and operational issues. Presentations of major changes to the Flash 7 SDK, and code reviews with engineering. Ran periodic conferences with sales and remote engineering services personnel of Adobe, in Asia and Europe as well as North America.

01/2002-present: Independent Research

Modal Transformation Software: "Melodicon," a general-purpose digital media routing and transformation tool. Applications include musical education, harmonic analysis, and the creation of visual art through the instantaneous detection of tonal structures in common sounds. (Patents pending).

Resonant Harmonics: Development of conceptual and mathematical models for a unique system of internally consistent harmonic frequency structures. Research and development of computer systems that will allow composers to write and perform works using resonant harmonic scales.

11/1999-01/2002: Inktomi, Inc. (Needham, MA)

Senior Software Engineer, Tech Lead

Cross-Platform Server Development: Design, implementation and maintenance of a distributed content deployment system, in C++ and Java. Enhanced and contributed to the architecture of Content Delivery Suite, an enterprise-level web management and content distribution system written in Java, for both Unix and Windows 2000 platforms. Current and prospective customers include Fidelity, Compaq, AOL and HP.

Windows Clustering Interface: Implemented a high-availability solution for CDS that allowed backup and recovery from power failures on a Compaq ProLiant cluster.

IPC Module Design: synchronized access to shared memory blocks, implemented on Unix and NT platforms using semaphores, mutexes and Posix condition variables.

Technical Lead Responsibilities: team organization and coordination, phase review presentations, QA and PM negotiation, technology investigation, mentoring, resource scheduling and crisis management.

1998-1999: Lexicon, Inc. (Bedford, MA)

Senior Software Engineer

Lexicon Studio: Designed and implemented a COM-based API to Lexicon's 24-bit PCI sound card, involving audio streaming, I/O control, effects processing, and dynamic hardware configuration. Inter-process communication, object synchronization and asynchronous notification handling allowed real-time access to the card's gain settings, clock source selection, and timecode resources, in C++.

DirectX Filter Development: Created a reverb effect processor as a DirectX filter, in C++. Implemented a Logic 7 ASIO Plug-In that allowed encoding and decoding of surround-sound data, in C++.

1991-1998: Aranex Corporation (Bedford, MA)

Senior Software Engineer

Internet Host Server (IHS): Designed and implemented a distributed NT Server product which allowed enterprise web designers to present and manipulate legacy data in real time. The effort involved integration of existing emulation technology into an ASP code generator that employed COM automation to communicate session data through a HLLAPI interface. Included a configuration and management utility that allowed network administrators to analyze and monitor session activity, in C++.

5250 and 3270 Terminal Emulation: Maintained and enhanced terminal emulation software for 32- and 16-bit windows platforms. Modeless GUI features including Drag and Drop, toolbar configuration, and embedded text links, in C and C++. Designed and implemented mainframe and midrange terminal firmware, interfacing a proprietary ASIC and circuit board using a 68x processor, in C.

1989–1991: IntelligenceWare (Los Angeles, CA)

Software Engineer

Expert System Case Tool: Designed and implemented a programming environment and debugger for a proprietary rules-based knowledge-acquisition system in C. **Database Conversion Utility:** Allowed the generic translation of data in one relational database format to another, in C. **Other duties:** Internal and user documentation, technical support, training and quality assurance.

1988–1989: Integrated Graphics Systems (Pasadena, CA)

Software Engineer: Graphics Programming and Analysis on x86 and Mainframe platforms, in Fortran 77.

Education 1984–1988: California State University, Los Angeles

B.S., Computer Science and Mathematics

Magna Cum Laude graduate, with scientific programming emphasis.

Phi Kappa Phi Honor Society, National Dean's List (10-time honoree).

Advanced study of fractal geometry, interactive graphics systems and relational database design.

Interests 2002-present: Video Art and Production

Somerville Producer's Group: member since 2003. Assist and produce live cable access programming every other Tuesday evening at the studios of Somerville Community Access TV.

Documentary and promotional films: Short pieces on civil disobedience and performance art. Promotional videos for musical groups. Various digital editing contracts.

Museum and Gallery work: Technical Director for the Art Interactive (2002-2003), a technological exhibition space in Cambridge, MA. Fine art preparation and installation, in Boston and New York galleries.

www.mikehallvideo.com ([cv](#))