

leverage • innovate • win-win

Interests:	<i>Fast Servers. Graphics. GUI design. Simulation. Internet applets. Games. Visual design tools. Digital image processing. Design and implementation of fast algorithms. Learning algorithms.</i>
Environments:	<i>Windows. Macintosh. dot-NET. BSD/Linux. UNIX. NeXTStep.</i>
Languages:	<i>C++. C#. C. Pascal. Postscript. Assembly (680x0 and 80x86). Objective-C. BASIC. FORTRAN. JavaScript. VBScript. ActiveX(COM). Netscape Plug-ins. DirectX. ASP. STL. ATL. HTML. DHTML. MFC. Unicode. RenderMan. OpenGL. WinSock. ISAPI. OleDb. SQL. XML. SVG.</i>

Aros Magic (<http://www.arosmagic.com>). Founder, 1996 - Present.

Viewer, Checkers, Reversi, Go-Moku, Renju, Ninuki-Renju, Solitaire, Twist, Ana!Banana, Fractals. Aros Magic Portable Class Library (APCL).

Through Aros Magic I "create magic". The crown jewel of Aros Magic is a portable class library representing the distilled experience of my personal research in commercial software development. This lightweight, high-performance graphics oriented library is used to build extraordinary programs for the consumer, publishing and game markets. With APCL, a typical small-medium scale application can be built in less than half the time taken by other heavy development systems like MFC and has superior performance. Aros Magic applications are Easy, Useful, Powerful and Beautiful. Like magic. By design.

Design and implementation of core Aros Magic technologies, including – multi-platform portability library for Win32 and MacOS, integrated Unicode support for single-binary multi-locale applications, resolution independent GUI and image processing, SVG Engine, Poor Text Format display engine, 64-bit synthetic textures and imaging, sprite system.

Microware (<http://www.microwarecorp.com>). Director, 2003 - Present.

Outsourced Consultancy.

Design and implementation of numerous highly available client/server solutions for call centers, banks and government projects. Software Turret for brokerages. Transaction PIN authentication server for financial institutions. License CDR processing engines. OpenGL based SCADA gauges. Real-time capture/reporting tools for call center operations. Real-time data acquisition and control systems. Technical leadership of difficult problems.

Infospace (<http://www.infospace.com>). Senior Software Engineer, 2000 - 2002.

Server Platform Engineering.

Maintenance and enhancement of a proprietary Web Server critical to company's success. Development of an innovative plug-in architecture for it, resembling COM. Creation of an internationalization plug-in that provides comprehensive i18n/l10n functionality. Architecture of a high performance Billing Server. Invention of a specialized HTTP server measurably *ten* times faster than C#.net. Technical leadership and/or consultancy role in numerous projects throughout the company.

Catalytic Software (<http://www.catalytic.com>). Co-Founder, CTO, 1999-2000. Software Engineer, 1998.

Chromium Communications (<http://www.chromium.com>). Co-Founder, 2000.

Catalytic Self Extractor. Makong. ChromeSpace. ChromeKeys.

Provide technical leadership to the CEO for the formation and operation of Catalytic Software Limited in India. Architect a comprehensive software development process for the company. Lead critical technical projects to completion.

Development and enhancement of an existing file-management engine with ActiveX and LiveConnect support for Internet connectivity and support for all major Win32 platforms. Creation of JavaScript based pages with a dynamic user interface. Development of a Setup program with catastrophic recovery capabilities. Invention of an efficient self-extracting, self-installing program. Imaging support (JPEG, PNG, etc.) for a lightweight HTML based browser, including fast bilinear scaling and alpha blending. Integration support of ActiveX controls. Creation of automatic form filling ActiveX control.

Point.com (<http://www.point.com>). COM/SSO Developer, 1999.

Site Architecture.

Development of Server Side COM objects to improve site performance and scalability using ATL OleDb Consumer Objects. Write the necessary ASP/(VB/Java)Script/SQL stored procedures to make use of the objects. Extensive performance analysis of site. Architecture of a high performance e-commerce site using ISAPI extensions and filters to service over a million visitors per day.

Microsoft (<http://www.microsoft.com>). Software Test/Design Engineer, 1990-96.

Microsoft Exchange Server Database. Microsoft Access JET. Microsoft Exchange Directory Services. Microsoft Mail for PC Networks 3.0 Windows Client.

Microsoft Mail for Appletalk Networks 3.0.

Development and maintenance of a scripting language to test database engines. Design of database usage simulation algorithms and tools to exercise multi-threaded, fault tolerant transaction processing. Implementation of test suites, tools and utilities for code coverage and performance analysis. Development and maintenance of test scripts for server function calls, the Mail API (MAPI) and a test gateway to exercise Gateway Services. Invention of a new testing methodology based on the application of Genetic Algorithms. Invention of hardware to perform intensive automated "power-off" testing.

SmethersBarnes. Software Engineer, 1989.

Prototyper Professional, Now ScreenLocker.

Development of a high-end object oriented interface builder for Macintosh. Design its graphical user interface and message passing scheme. Development of Mac utilities.