

Summary

Over 20 years experience defining, designing, architecting, managing, and building highly usable and highly scalable software and technology-based systems. Proven ability to break large complex problems into concrete, actionable pieces for a team to implement, from algorithms to user interfaces. Successfully guided 18 products from concept stage through commercial release, including early products for desktop productivity, tablet computers, and web publishing.

Experience

Groupthink Labs, Redmond WA, 2008 to present

Founder & CTO

Building essential business productivity software as a service for small and medium-sized businesses.

Sampa Corporation, Redmond WA, 2007 to 2008

Director of User Experience

Part of senior team at web services startup. Responsible for all aspects of user experience, from planning and conceptualization to implementation. Led the redesign for Sampa v2, a new user interface for site owners, administrators, and contributors, which resulting in a doubling of engagement by site owners, and Sampa v3, a new, highly engaging user experience for site visitors.

DreamBox Learning, Inc., Bellevue WA, 2006 to 2007

Senior Architect

Part of senior team at online educational startup. Designed, architected, and built a platform from the ground up, providing for the creation and delivery of highly flexible and adaptable educational content over the Internet, which is automatically tailored to student needs as they use the system. The first product built on this platform shipped in early 2009. Filed for seven patents.

Red K Consulting, Redmond WA, 2003 to 2006

Consulting Architect

Provided software design, architecture, development, and usability services. Specialized in getting a product or project over design and implementation roadblocks, and, in particular, figuring out how to design, build, and ship a complete product to meet user needs that are not yet fully understood. Projects included: 1) an advanced Internet and intranet search system, 2) a large-scale web application development and customization system, 3) a high-performance instrumentation system for a massively large database and web service, and 4) a database encryption system.

Microsoft Corporation, Redmond WA, 1998 to 2003

Technical / Lead Program Manager

Led the development of client user interfaces in an Office component team, including designing the core UI and managing overall UI design and partner relationships. Designed and architected the authentication and security system for the NetDocs hosted service, including integration with the Passport service; worked with Passport team to add features for delegated administration (used today by Hotmail). Managed the design and implementation of a server-client notification architecture for this service and a project to understand, measure, and improve the scale of the service. Oversaw the effort to make data access pages in Access programmable by developers and usable with Office data components.

Squirrel Works, Inc., San Mateo CA, 1997 to 1998

CTO

Set the technology strategy. Designed and architected the features and functionality of Coordinate, a "software as a service" web service for calendaring and group coordination and communication (one of the first Web 2.0 social networking services). Product included integration of personal, public, and corporate information from our service as well as Outlook and Exchange servers. In addition to an early AJAX-based web client, the system worked with email, 2-way paging (ReFLEX or SMS), and phones with voice recognition.

Viridian Technologies, Inc., Sacramento CA, 1997

Software Architect

Provided user interface, usability and other software and design consulting for companies ranging from IBM to small companies, specializing in solving significant, blocking problems quickly with minimal change in project schedule and internals. For IBM Global Services, directed a project redesign which saved a \$150M distributed database system from cancellation.

Akimbo Systems, Inc., San Jose CA, 1994 to 1997

Founder & CTO

Member of management team. Led the design and development of Globetrotter Web Publisher, the first true publishing product for the web, designed around publishing and content, rather than the underlying technologies used on the web. Led the design and development of the FullWrite 2 word processor, which involved a significant internal and external redesign and rewrite to make the product smaller, faster, easier-to-use, more powerful, more reliable and extensible, while keeping the product familiar to existing users.

Pensoft Corporation (acquired by AT&T), San Mateo CA, 1991 to 1994

Principal Software Architect

Ran the User Interface Technologies group at an innovative startup focused on software for small form factor, pen-based computers. Responsible for user interface design and implementation of new products, with emphasis on usability by novice users.

Ashton-Tate Corporation, San Jose CA / **Ann Arbor Softworks, Inc.** (acquired by Ashton-Tate), Ann Arbor MI, 1986 to 1991

Senior Software Designer

Led the design and development of a graphical user interface version of dBASE IV, as well as an implementation of an initial PC-compatible version for the Macintosh. Led the design and development of FullWrite Professional, the first 100% WYSIWYG word processor.

Previously:

University of Michigan, *Research Assistant*, basic cognitive science research in Douglas Hofstadter's Fluid Analogies Research Group.

SoftPlus, Inc., *President & CTO*, educational software for home computers, embedded operating system design and implementation.

University of Kansas Entomology Department, *Systems Programmer*, real-time data collection, display, and analysis.

University of Kansas, *Assistant Instructor*, taught B, Pascal, Fortran, PL/1, and COBOL. Assisted and graded graduate-level course.

Ford Motor Company, *Systems Programmer* for Multics and GCOS operating systems.

University of Kansas Academic Computer Center, *Systems Programmer* for GCOS operating system.

Education

University of Kansas, Lawrence, KS - Bachelor of Science in Computer Science (minors in Math and English)

University of Michigan, Ann Arbor, MI - Graduate work in Ph.D. program in Computer and Cognitive Science at University of Michigan

Software Products

- **FriendMosaic.com**, personalized products site, 2009.
- **SeattleTechCalendar.com**, free shared events calendar for the Seattle tech community, 2009.
- **Puzzazz.com**, puzzle site, 2008.
- **Sampa.com v2**, web site publishing service, 2008.
- **DreamBox Learning K-2 Math**, adaptive individualized online learning, 2008.
- **Microsoft Office System 2003**, 2003.
- **Microsoft bCentral Communications Center**, e-mail communications service, 2000.
- **Microsoft Access 2000**, database product (part of Office 2000), 1999.
- **Globetrotter Web Publisher**, third-generation web publishing product, Akimbo Systems, 1996.
- **FullWrite 2**, word processor, Akimbo Systems, 1994. *MacWorld Hot Pick*.
- **Personal Perspective**, built-in personal information manager and notetaker for AT&T EO personal communicators, Pensoft, 1993.
- **Perspective**, pen-based personal information manager, notetaker and database development system for PenPoint computers, Pensoft, 1992. *Byte Magazine Award of Distinction*.
- **dBASE IV RunTime Plus**, database product, Ashton-Tate, 1991.
- **FullWrite Professional**, word processor, Ashton-Tate, 1988 and three updates through 1990.
- **FullPaint**, graphics package, Ann Arbor Softworks, 1986. *MacUser Eddy Award*.
- **Arcademic Skill Builders**, nine educational games, DLM/SoftPlus, 1983 and 1984.
- **Meteor Madness**, game, SoftPlus, 1983.

Patents

- Method for Creating Graphical Images, US Patent 6,236,407
- System and Method for Communicating Audio Data Signals via an Audio Communications Medium, US Patent 6,934,370
- Delegated Administration of Namespace Management, US Patent 7,330,971
- Method and System for Automatic Insertion of Context Information into an Application Program Module, US Patent 7,392,475
- Persistent Authorization Context Based on External Authentication, US Patent 7,401,235
- Context-sensitive content level semantic information propagation system and method, US Patent 7,490,133
- System and Method for Handling Action Items, US Patent 7,571,108
- Method and System for Activity-Based User Interfaces, pending
- Active Agenda, pending
- Systems and Methods for Processing Collateral Content Associated with an Electronic Message, pending
- System and Method for Sharing Objects over a Computer Network, pending
- System and Method for Communicating Audio Data Signals via an Audio Communications Medium [#2], pending
- System, Method, and User Interface for Organizing and Searching Information, pending
- System and Method for Creating a Lesson, pending
- System and Method for Adapting Lessons to Student Needs, pending
- System and Method for Assessing Student Progress and Delivering Appropriate Content, pending
- Dashboard for Monitoring a Child's Interaction with a Network-based Educational System, pending
- One Bar Math Rack and User Interface, pending
- Two Bar Math Rack and User Interface, pending
- Ten Bar Math Rack and User Interface, pending
- Virtual Manipulatives to Facilitate Learning, pending

Publications

- *Who-doku: Sudoku with Personality*, Sterling Press, 2008
- “Programming Data Access Pages,” Microsoft, MSDN, 1999.
- “Deploying Data Access Pages on the Internet,” Microsoft, MSDN, 1999.
- “Northwind Traders Direct,” sample application, Microsoft, MSDN, 1999.
- “Data Access Page Programming,” training video, Microsoft, 1999.
- “Adding Memory Protection to the MacOS,” Akimbo Systems Technical Report 97101, 1997.
- “Building a Fully Extensible Application,” MacHack ’94, Ann Arbor, Michigan, June, 1994, pp. 61-76.
- *FullWrite Professional: Advanced Techniques*, Ashton-Tate Publishing, Torrance, California, 1989, with Bob Morrish.
- Have had numerous puzzles published in *The New York Times*, the *Los Angeles Times*, *GAMES Magazine*, and elsewhere.

Technical Skills

User Experience	More than twenty years experience, including interface patterns, contextual inquiry/design, affinity analysis, heuristic evaluations, scenarios and personas.
Software design	Extensive experience in algorithms, architecture, design patterns, object-oriented design and frameworks.
Software development	Have recently developed software using AJAX, ASP.NET, C#, JavaScript, HTML and DHTML, Python, and Ruby on Rails.
Other languages and technologies	Have also developed software using ActionScript, B, BASIC, C, C++, COBOL, FORTRAN, Lisp, Objective C, Pascal and Object Pascal, PL/1, PostScript, Ratfor, Visual Basic, XML, XSL, assembler languages (6502, 68K, 8080, GMAP, Multics, Z80), and editor languages (fx, QED, qedx). Have developed software for 14 operating systems, including Windows, .NET, Macintosh, Unix, and Multics.
Databases	Worked on the Microsoft Access and Ashton-Tate dBase development teams.

Other Interests

- Puzzles, photography, ambigrams, cooking, writing.