

Director of User Experience **Sampa** 2007-2008

Personal private cloud-based social networks for friends and families. Designed Sampa v2, a new experience for site owners, administrators, and contributors, resulting in a doubling of engagement, and Sampa v3, a new, highly engaging user experience for site visitors. Drove all user experience and UI design implementation, including planning and conceptualization.

Senior Architect **DreamBox Learning** (acquired by Charter Fund) 2006-2007

Online educational software startup. Designed and architected adaptive machine learning engine from the ground up for in-lesson adaptation, lesson navigation, and individual assessments based on educational standards. Originally launched in DreamBox Learning K-2 Math, the platform provided for the creation and delivery of highly flexible and adaptable educational content over the internet, automatically tailored to student needs as they use the system.

Technical / Lead Program Manager **Microsoft** 1998-2003

- Led the development of client user interfaces for Office collaboration including designing core component UI and managing overall UI design and partner relationships.
- Convinced the Passport team to add delegated administration, which became Microsoft Accounts.
- Designed and architected the authentication and security system for the NetDocs hosted service and bCentral Communications Center. Led a project to understand, measure, and improve the scale of the service.
- Managed the design and implementation of a server-client notification architecture.
- Designed a pen and handwriting input system for a mobile productivity suite.
- Led data access pages team for Access.

Earlier work: designed and implemented SaaS system with voice input for calendaring and group coordination; built a handwriting-based user interface for personal communicators; redesigned a customer management system for IBM, saving a \$150M project; led design, architecture, and development of FullWrite word processor and Globetrotter Web Publisher.

Technologies

C#, C++, Python, Swift, Java, Lisp, JavaScript, AJAX/HTML/CSS; targets include iOS, macOS, Windows, .NET, Unix variants, Google App Engine, and the web.

Education

University of Kansas, Bachelor of Science in Computer Science

University of Michigan, Graduate work in Ph.D. program in Computer and Cognitive Science / AI

Other Experience

- **Board Member:** Puzzazz (2008-present), Bridges International Repertory Theatre, Seattle, 2000-2003 (Board President, 2001-2003); Akimbo Systems, 1991-1998 (chair); Hackers Conference, 1990-1992, 1996-2001; Fashion Eyeland, 1981-1993; SoftPlus, 1981-1984 (chair)
- **Arts Commissioner:** City of Redmond, Washington, 2004-2007 (Chair, 2005-2006)
- **Advisor/Mentor:** Seattle Founder Institute, 2011-2017; Startup Weekend, 2009-2011; StartPad UX Office Hours, 2008-2012; Faves.com, 2006-2007; Sampa, 2004-2007.
- **United Way Loaned Executive, representing Microsoft:** Fall 2002

Patents

- System, Method, and User Interface for Organizing and Searching Information, US 10,423,668
- System and method for adapting lessons to student needs, US 10,347,148
- Active agenda, US 10,200,468
- System, Method, and User Interface for Organizing and Searching Information, US 8,019,749
- User Interface for a computer display, US D615,547; US D615,988; US D629,809
- System and Method for Handling Action Items, US 7,571,108
- Context-sensitive content level semantic information propagation system and method, US 7,490,133
- Persistent Authorization Context Based on External Authentication, US 7,401,235
- Method and System for Automatic Insertion of Context Information into an Application Program Module, US 7,392,475
- Delegated Administration of Namespace Management, US 7,330,971
- System and Method for Communicating Audio Data Signals via an Audio Communications Medium, US 6,934,370
- Method for Creating Graphical Images, US 6,236,407

Additional patents pending

Presentations and Public Speaking

- Have given talks about software development, innovation, user experience, startups, puzzles, and games at Microsoft, Google, Startup Weekend, StartPad, PAX Dev, Ignite, Seattle Tech Startups, Seattle Technical Forum, Northwest Entrepreneur Network, Eastside Entrepreneurs, Eastside Incubator, MindCamp, MacHack, Gathering for Gardner, Center on Contemporary Art, the THINK conference, and the Hackers conference.
- Have taught classes and given seminars at: University of Washington, Indiana University, PLAYfest (University of St. Thomas).

Publications

- “How Hard is This Puzzle Anyway? Leveraging user analytics to measure and understand the difficulty of crossword puzzles,” Puzzazz, 2016
- Two puzzle books in the *Almanaq* series, *Almanaq*, 2015 and 2018 (*The Conjuror’s Almanaq* is one the most-backed puzzle book all-time on Kickstarter).
- 29 puzzle books sold by Puzzazz; editor of 5 others, 2011-2018
- ipuz file format specification, released under a Creative Commons license, 2011 (updated 2014)
- *Who-doku: Sudoku with Personality*, puzzle book, Sterling, 2008
- *FullWrite Professional: Advanced Techniques*, Ashton-Tate Publishing, 1989, with Bob Morrish.
- Have had puzzles published in numerous newspapers and magazines, including *The New York Times*, the *Los Angeles Times*, and *GAMES Magazine*.