

Software Development & Technology Ideas

I'm a Creative Techie (decades in C & tools) continuing to explore inventive and creative uses of technology and make software (old, new, and the mundane, necessary stuff too) better, faster, and more intuitive. I may not have all the tech keywords, but I love challenges, novel solutions, and learning languages and systems. I also have an international gold medal from the A Cappella world.

The curious, explorer, "why-not" side of me designed and developed a multi-threaded, MVCC, NoSQL Database Engine from scratch (IP 100% written and owned by me) – licensed & used by Apple for 11 years and in use by other clients. Performs geographic, relational, and adaptive search.

Decades of experience in software development & support: tools, algorithms, problem solving & computation, search, creating new programming languages, customer communication, one-to-one technology consulting, UX/UI design, internal OS and CPU architecture, and a few cool OS hacks.

Experience

Software Developer & Consultant, Millburn, NJ 1989-Present

Developed and Designed custom tools and apps (core language C):

- developed 3 custom programming languages & interpreters and ported one for PostScript
- an app for Apple's Internet Mail Server, 1st to support multiple domains & advanced routing
- a message-based multi-threaded simulation engine with lock-free data structures for shared memory parallel processors
- an Apache CGI to app gateway
- a custom CMS for a subscription-based web publication
- several web games, geographic search tools, and Internet contests & promotions
- interactive CD-ROM/Books for Voyager, prototypes (American Airlines Sabre), and apps for education, art display (highlighting abilities of high-end flat screens) & training
- amusingly, Google will locate some of my source code going back to 1986
- provided custom Internet hosting since 1996

Strong communication and technology instructional skills.

Apple Consultant 1989-Present

Consulting for Apple Consumer Technology to small business and individuals, ages 6-103.

InterActions Media, a division of NCI Advertising / Publicis, New York, NY 1998-2002

Co-Founder, VP Development – Created and managed 25 projects over four years with a peak team size of 10 people. We created software for medical education, pharmaceutical marketing, interactive games, contests, surveys, and software for the Internet and Palm platforms.

Ehrlich Multimedia / Times Mirror Multimedia, Park Ridge, NJ 1993-1995

Software Developer — Developed Interactive CD-ROM titles in Macromedia / Adobe Director and created custom development tools.

Graphex Imaging Systems, Yonkers, NY 1991-1993

Software Developer — Developed computer graphics solutions and ported C language source for a PostScript RIP from Windows to Mac & Unix. (Also increased output resolution by a factor of 4.)

Wrote a SCSI device driver and a front end to connect the RIP to a custom parallel graphics engine.

Symantec / Peter Norton Product Group, Santa Monica, CA 1991
Consultant — Developed components and tools for The Norton Desktop™ for Windows 3.

Citicorp / Transaction Technology, Inc., Santa Monica, CA 1989-1991
Consultant — QA for Bank ATMs. I took the initiative to develop a Goal-Seeking programming language & interpreter to model ATMs. The interpreter generated robot code to test ATMs.

Digital Equipment Corporation, Boxborough, MA 1985-1989
Senior Software Engineer — Developed Automated CPU Architecture Verification software for CISC and RISC: VAX, MIPS, PRISM & Alpha. Original Architect and Developer for DEC's RISC Architecture Exerciser. Developed strategies, methods, and Monte Carlo models to test register usage, memory access, instruction order, and arithmetic integer and floating point hardware. Required intimate knowledge of multiple processor architectures and operating system internals.

Wang Laboratories, Lowell, MA Summers 1983-1984
QA Associate — Developed interactive and automated tests for various peripherals.

Education

University of California, Los Angeles, CA 1989-1991
Advanced to Candidacy for a M.S. in Computer Science (ABD), GPA 3.71, Advanced Computer Architecture, Fault Tolerant Computing, & Parallel Simulation. Developed a multi-threaded simulation engine for a Shared Memory Parallel Super Computer. ACM Programming Team.

University of Massachusetts, Amherst, MA 1981-1985
B.S. in Computer Science, GPA 3.92, elected to Phi Beta Kappa, Cum Laude
Dean's list every semester & an Alumni Scholar. Operating systems, numerical computation, and computer graphics. Graduate TA my last semester for a course on assembly language.

Non-Tech Interests

Active in community theater and performing in a cappella groups since 1985. I have performed on radio, television, and in a feature film.

Awards / Selections

ZipBurst: licensed by Apple 2001-2011, used on Apple.com and in use elsewhere 1997-Present.

Communications Arts: Best Information Design (1998), The Cell, Unit of Life, an interactive primer

MacWorld Expo Developer Greenhouse MailBurst (Util 5) selected and recognized (1997)

Macromedia Shockwave Site of the Week for AT&T Olympic Shockwave Games (1996)

New Media Invision Multimedia Business Week 1000 CD-ROM — Bronze Medal (1994)

DEC: Recognition for contributions to Verification of the Aquarius CPU Design, VAX 9000 (1989)

Commercial Apps

ZipBurst, Apache-Apple Event Bridge (AAEB), MailBurst, FaxBee & CodeBurst.