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GOAL

I'm seeking a full-time position as a lead/contributor with a software team that will develop, ship and support a digital media products (either audio or video)

ABOUT ME

I am a Software Developer/Engineering Manager with broad experience developing code and managing Software Engineering organizations in the Digital Media, Microprocessor, System Design, EDA software and Semiconductor industries. **My focus is building and contributing to software organizations that develop, ship and support revenue generating products.**

EDUCATION

- BSc in Physics, California Polytechnic State University; San Luis Obispo, CA
- Course work in Computer Science from University of California, Berkeley
- Paid researcher at Stanford CCRMA 1994-1996 (Sondius Program)
- Professional Sequence in DSP from University of California, Berkeley (2004). Developed MP3 Layer-1 Encoder/Decoder as a class project.

PRODUCTS

- Instrumental in developing the client portions of Wal-Mart.com's music download services.

- Instrumental in developing Wal-Mart.com's Custom CD service.

- Staccato's SynthCore-OEM is a part of the Analog Devices "SoundMAX" product. It is found on shipping PC's (See http://www.soundmax.com/OEMPartners/index.html). Examples include the HP Pavilion (HP502n), Compaq (1510, 705) and IBM (NetVista A and M Series) systems as well as the Intel® D845PEBT2 Desktop Motherboard. **I co-developed SynthCore-OEM, as well as managed the development team.**

- Staccato's SynthCore-SKD is found in a number of games, including Electronic Art's NASCAR-Revolution and NASCAR-2000. **I co-developed SynthCore-SDK, as well as managed the development team.**

SKILLS

Software Development	Engineering Management
Audio Programming, DSP Programming, Windows Media and DRM SDKs, C/C++/Objective-C, MATLAB, Java, JavaScript, Perl, Tcl/Tk, ASP, VB, Lex/Yacc, Windows (Win32/WinCE) Programming, MacOSX/Cocoa Programming, Unix/Linux Programming, System Architecture, Development Environment Setup, Engineering Process Automation, Whitebox Test Development, Documentation	Product Development Management Engineering Team Bootstrapping Process Assessment and Development Development Environment Design Requirements Analysis Project Scheduling Resource Cost and Allocation Planning Customer Relationships (Technical) Internationalization Technical Diligence

WORK EXPERIENCE

10/2003 – Present: *Liquid Digital Media (Formerly Liquid Audio)* VP of Technology.

- Liquid powers Wal-Mart.com's music and music-video services: Downloads, Custom CD, Promotions. I am responsible for all technical aspects of this business including managing a team of 30 including Software Developers, QA and Operations.
- Instrumental in developing Wal-Mart.com's Custom CD service.
- Instrumental in developing the client portions of Wal-Mart.com's music download services. .
- Deeply familiar with Microsoft's Media and DRM SDKs.
- Supported HW technology partner Phillips with continued development of the Liquid Media Player.
- Extensive development of a media player/embedded store application for Liquid's partners.

4/2001 – 10/2003: *Jarrah Consulting* - Software Engineering and Management, Digital Media Appliance Developer.

- Contracted a variety of development and engineering management services for companies developing Digital Media Products.
- Developed business plans for a Digital Media Appliance with a unique cabling interface.
- Developed a prototype for a Time Shift Radio device which used acoustic signatures to identify content recorded from terrestrial radio.

8/2000 – 4/2001: ***TuneTo.com*** **– Member of the Technical Staff, VP OEM Software**
(TuneTo.com sold to Listen.com 4/2001)

- Packaged TuneTo.com's Internet Radio SDK. Work consisted of performance and memory tuning, documentation, developed all whitebox tests, set up automated build and test systems, final SDK productization.
- Focused engineering effort to bring the TuneTo.com Internet radio receiver to new markets on embedded platforms.
- Co-ported the TuneTo.com SDK to Windows CE mobile platform. As far as I know this was the first example of a mobile music service.
- Developed TuneTo.com's Technical Diligence Package as a part of TuneTo.com's acquisition by Listen.com. Developed 1500 pages of documentation for all portions of the TuneTo.com software stack.

10/94 – 7/2000: ***Stanford University/Staccato Systems (Staccato Sold to Analog Devices, 1/2001)*** **– Stanford Researcher, Staccato Founder, Staccato Board Member (1/97-10/98), Director of Engineering, Vice President of Engineering**

- (10/94 - 12/96: Stanford Sondius Project, OTL/CCRMA) Researcher, ***Stanford University*** - Worked on development of portions of SynthBuilder - a Graphical Real-time Synthesis, Processing and Performance System, Physical Models (including an electric guitar Physical Model), SynthScript (an interchange format for Synthesis Patches).
- (1/97 – 3/2000: Staccato) Co-authored the initial business plan.
- Bootstrapped the Software Engineering Organization:
    - Hired and Managed engineering staff
    - Managed customer/investor contacts
    - Put processes in place
    - Co-developed product plans
    - Wrote code, 1/3 of Staccato's SynthCore product (SynthScript/DLAmanager)
    - Set up software development environment: Network, source code management, bug tracking, automated build and test systems
    - Developed internationalization Strategy, and managed translation vendors
- Delivered on initial investor milestones that led to second round of funding.
- Responsible for delivering Staccato's SynthCore product.
- **Delivered Staccato's SynthCore-OEM product that generated $1.5M in annual revenue, 90% of Staccato's revenue.**
- Managed OEM engineering relationships with audio CODEC manufacturers.

3/96 - 6/96: ***Aureal Semiconductor*** **– Contractor**

- Worked on programming the Aureal 301 waveguide chip.

9/93 to 9/94: *Sun Microsystems* - Manager Test and Validation tools (UltraSPARC)

- Managed the Test and Validation Tools groups (9 headcounts) as a part of Sun's high-end 64bit microprocessor project (UltraSPARC). These tools groups crafted many of the tools that were used to verify the UltraSPARC design, including the design of the UltraSPARC TAP controller and Design for Test methodology, tools for managing all aspects of system validation, and the implementation of DReAM, a tool for distributing validation simulations into a farm of nearly 1000 Sparc Stations.

9/90 - 9/93: *Apple Computer* - Manager/ Engineer Design Automation Tools, RISC Products group (PowerPC)

- Managed and contributed to the Apple RISC products (PowerPC) Design Automation Tools group. Managed 9 head counts plus a $1.0 million head count budget and a $1.8 million dollar capital equipment budget. Staffed the group with 6 engineers and 2 contractors. This group was responsible for Design Automation efforts that contributed to Apple's PowerPC system designs. This included the simulation environment and portions of the design verification; cosimulation with the IBM 601 compiled code simulator using the VCS (Chronologic) simulator; the Design for Test (DFT) and Automatic Test Methodology (ATPG) as well as delivering 98% coverage test vectors for all ASICs; the layout of Gate Array chip designs; the network computing environment; the tools process. The Design Automation Tools group represented a new way of doing hardware design at Apple.

10/85 - 9/90: Teradyne/Aida - Manager of EDA Tool Integration

- 11/87 - 9/90: Manager, Teradyne EDA Tool Integration group, ***Teradyne EDA*** West, Santa Clara, CA (In 1987 Teradyne acquired the AIDA Corporation). Managed 5 developers, including myself. This group developed all necessary interface software to integrate the Teradyne EDA tools into our customer's design flow. The group developed and maintained 15 new applications over the course of two and one half years. I personally developed 5 of these applications over the same period of time.
- 10/85 to 11/87: Project Leader, AIDA Tool Interface group, ***AIDA Corporation***, Santa Clara, CA. Project leader for 3 developers including myself. This group developed all interface software necessary to integrate the AIDA tools into our customer's design flow. The group developed and maintained 25 applications over the course of 2 years. I personally developed 7 of these applications. The group developed NETGEN, an abstract procedural interface (API) used for querying the AIDA database.

6/83 - 10/85: *National Semiconductor* - Project Leader/Engineer, ASIC EDA department, Santa Clara, CA

- Project leader/engineer for the ASIC group's Daisy workstation development effort for custom, standard cell and gate array products. I was responsible for all phases of EDA integration software.

PATENTS

5,742,532: April, 21, 1998. Van Duyne; Scott A. (Stanford, CA), Jaffe; David A. (Berkeley, CA), Scandalis; Gregory P. (Mountain View, CA), Stilson; Timothy S. (Mountain View, CA) **"System and Method for Generating Fractional Length Delay Lines in a Digital Signal Processing System."**

6,959,094: Oct 25, 2005. Cascone; Kim (Pacifica, CA), Petkevich; Daniel T. (San Jose, CA), Scandalis; Gregory P. (Mountain View, CA), Stilson; Timothy S. (Mountain View, CA), Taylor; Kord F. (San Jose, CA), Van Duyne; Scott A. (Palo Alto, CA) **"Apparatus and methods for synthesis of internal combustion engine vehicle sounds"**

PAPERS

"SynthBuilder: A Graphical Rapid-Prototyping Tool for the Development of Music Synthesis and Effects Patches on Multiple Platforms", Nick Porcaro, David Jaffe, Pat Scandalis, Julius Smith, Tim Stilson, and Scott Van Duyne, Computer Music Journal, Volume 22, Number 2, pp. 35 - 43, MIT Press, 1998.

"A Lossless, Click-Free, Pitchbend-able Delay Line Loop Interpolation Scheme", Scott A. Van Duyne, David A. Jaffe, Gregory Pat Scandalis, Timothy S. Stilson, 1997 International Computer Music Conference, Greece, 1997.

"SynthBuilder and Frankenstein" N. Porcaro, W. Putnam, P. Scandalis, T Stilson, D. Jaffe, and J. O. Smith, S. Van Duyne, ICAD 1996.

"Work in Progress, SynthScript and SynthServer", P. Scandalis, David Jaffe, CCRMA Affiliates Presentation 1996.

"SynthBuilder: A Rapid-Prototyping Tool for Sound Synthesis and Audio", Nick Porcaro, Pat Scandalis, Julius Smith, 1996 Presented at Berkeley EE seminar.

"Using SynthBuilder for the Creation of Physical Models", N. Porcaro, P. Scandalis, D. Jaffe, and J. O. Smith, 1996 International Computer Music Conference, Hong Kong. 1996.

"SynthBuilder Demonstration, A Graphical Real-Time Synthesis, Processing and Performance System " Nick Porcaro, Pat Scandalis, Julius Smith, David Jaffe and Tim Stilson, 1995 International Computer Music Conference, Banff. 1995.

"Lexical Mapping of Identifiers in a Netlist Generation Procedural Interface", Submitted ICCAD 1990.

"NETGEN, a Procedural Interface for Netlist Generation", Submitted European Teradyne Users Group 1990.

"EDIFTRAN, an EDIF Netlist Reader for Teradyne EDA DA Systems", Teradyne Users Group, 1990.

"An Implementation of an EDIF Netlist Reader Using LEX and YACC", EDIF Users Group, 1988.

AWARDS

SynthBuilder wins Grand Prize in Second International Music Software Competition , Bourges, France, 1997

PROFESSIONAL AFFILATIONS

Audio Engineering Society (AES)
Institute of Electrical and Electronics Engineers (IEEE)
Association for Computing Machinery (ACM)
National Association of Music Merchants (NAMM)
International Computer Music Association (ICMA)

References provided on request.