Alan Tracey Wootton
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• Technological leadership.
• System software design and implementation.
• Product implementation.

Experience

5/13 to 2/15 **Addepar.**
• Migrating the large existing code base into a high performance massively distributed system.
• Developed new product wide permissions system and applied for patent.

2/09 to 5/13 **Playdom.com/Disney.**
• I was a NoSQL pioneer and proved it was possible at a time when all other products were MySql. Today Playdom, and Disney, use the DisneyDb which is NoSql.
• Interviewed 100's of applicants and hired dozens. I can pick the best.
• I wrote and deployed an http and socket based non-blocking distributed system from scratch (on tcp api's).
• I advised many teams on NoSql strategies.
• Evaluated serialization strategies and wrote, and deployed, one to production.
• Evaluated NoSql packages (mongo, membase, etc) and wrote several experimental version of that.
• I became the most capable debugger for several products. Some of which were not written by myself.
• Documented and educated others to reduce reliance upon myself.
• Wrote many tech demos and game engines. Wrote a tiny NanoWebSocket server.
• My work was recognized, in print, by VC's as being a reason that Playdom was acquired by Disney.
• The game I wrote, Wild Ones, is still a popular product with an unusually long life.
• Promoted an IDE and tools for non-programmers to design and get immediate feedback.
• Brought an overseas team up to speed.

2/07 to 10/08 **JotPark.com Co-founder.**
I did extensive work with Adobe Actionscript using the Flex development environment and using the Flex library. I wrote supporting server demos using Ruby/Rails. Then I wrote a highly scaleable web services systems basically comprising http, and binary, web services with an integrated distributed object storage with redundancy and realtime growth and failover. This is the JotScale.org project which is now Open Source on the web. I am introducing a new asynchronous model for web services, primarily AJAX

with server push, with a simplified interface, similar to Rails, that is very efficient and scalable well beyond any common technologies.

4/03 to 2/07 **Ebay.com. Graphics Technology Expert.**
Hired as Graphics Technology Expert, became Exceptional Software Engineer attached to the Architecture department. I wrote the architecture for eBay Picture Systems, which was later deployed. This included ActiveX component and also demo servers in Java. I wrote many white papers for the arch dept. and implemented demo code as support. I wrote the arch and code for all the admin tools for Kijiji.com and implemented several imports of foreign data (German,Spanish) into the Kijiji database. I worked on the K2 project with Shopping.com team members to implement a product search product using commodity linux hardware and wrote code for Hadoop and Lucene to support web crawling and search. I worked with the Search team and implemented a data interchange format in C++ for company wide use (similar to Google Protocol Buffers). I extensively studied 'the Google Way' (redundant cheap commodity hardware, as opposed to expensive reliable hardware, which is 'the eBay way') of implementing large scale systems.

7/02 to 3/03 **TeraMath.com. Founder.**
Did extensive hardware and software design of a tera-flop single chip computer. Details of the TeraMath project are not presently being disclosed to the public.

11/00 to 2/01 **PixelKit.com. Author.**
An open source language for programming 3D graphics. Based on C++. Includes compiler and code generator to generate code for D3D (DirectX8) and OpenGL. Also, includes software renderer for debugging of vertex and pixel shader routines. Some content produced under contract (but not by me) for nVidia.

7/98 to 6/02 **Senior Systems Architect. Micron Technologies, San Jose.**
Responsible for 3d hardware architecture. Wrote new features into hardware “C” simulation. Re-wrote portions of D3D and OpenGL drivers in assembly and C++ to achieve ~2x speed up on many operations. Designed hardware vertex processing engine. Filed 2 patents (apparently not granted yet). Wrote C++ hardware simulator that could automatically generate optimized “C” simulation code and files and also automatically generate Verilog code and files.

4/96 to 4/98 **Founder and CTO of Newfire Inc**.
Venture funded startup. Two releases of two 3D, VRML based, software products. BSP and Z buffer rendering of VRML 2.0 scene graph. Supporting software, 3dfx, Rendition, OpenGL, and D3D rendering. Everything from high level shadow and lighting calculations for authoring product to low level Vxd driver to support rendering product.

6/94 to 4/96 **Wrote Real-time 3D engine for Mac and Windows.**
Very high speed BSP-tree based software 3d renderer with VRML 1.0 import.

12/92 to 6/94 **Adobe Systems - Manager of Macintosh Acrobat team.**
Managed team of three engineers through release of Acrobat product family.

2/91 to 12/92 **Adobe Systems - Lead Designer of Acrobat project.**
Wrote Macintosh Acrobat Viewer application. Wrote original versions of all machine

independent routines. Co-author and chief architect of PDF file format and machine independent tool kit.

7/90 to 2/91 **Creator of PlayWrite™ for the Macintosh Computer.**
A vertical market word processor for people writing screenplays. A self financed venture where I conceived the product, designed the architecture, implemented all programming, debugged, did user test followed by product release.

5/89 to 7/90 **Teamware Inc. - Programmer/Designer/System Architect.**
Distributed, programmable, multi platform, object oriented project management system in C and 68000 assembly. Also involved: Think Class library, compiler technology, network technology.

10/87 to 5/89 **Informix Inc. - Software Designer/Programmer.**
Began as consultant for Nova Inc. until purchase of product by Informix Inc. in 1988. As employee was responsible for design and implementation of large page layout project in Think Pascal, MPW Pascal, 68000 assembly, and MacApp. Wrote word processing and text layout engine.

11/85 to 10/87 **Ashton Tate. - Consultant.**
As consultant programmed with DBase Mac development team. Additionally wrote automated testing software for test department.
Prior to Ashton Tate worked for Softview on MacInTax. Also worked on real estate evaluation package in Basic and 8086 on IBM PC.

6/82 to 11/85 **Top-Notch Productions - Co-founder.**
Conceived, designed, programmed, debugged Mac•Tracks (keyboard macro program), and Work•n•Print (print spooling) for the Macintosh. Published by Assimilation Inc. Created Pollywog (game) in 6502 assembly for Apple][. Published by The Software Guild. Also wrote True-D, a real time, solid filled, 3D imaging engine in 6502 assembly.

6/78 to 6/82 **Jet Propulsion Laboratory - Computerized Testing Engineer.**
Imaging Sciences Section: Designed, built, and wrote software for automated test equipment to evaluate C.C.D. image sensors for Galileo mission to Jupiter and for Hubble Space Telescope. Electronic Equipment Engineering Group: Radiation Transport Analysis and Shielding design for Galileo. Promoted to E4.

Summary

- System software design and implementation.
- Large scale TCP/IP based systems for web services.
- Distributed hash tables.
- Distributed databases.
- Cryptology.
- Hardware architecture design and implementation.
- Graphical user interface application design and implementation.
- Object oriented program architecture and programming.
- Real-time 3D. Algorithm design and low-level optimized implementation.
- Twenty years experience as software engineer and programmer.

• Four years Real-time 3D, Windows and Mac (mostly Pentium).
• Eight years experience as Macintosh programmer.
• Ten years experience as Windows programmer.
• Fluent in Java, Javascript, ActionScript, C++, Pascal, Basic, Fortran, Pentium family assembly language, ARM, Atmel, 68000 family assembly language, VHDL, Verilog.
• Eclipse, NetBeans, Microsoft Dev studio, Xcode.
• Open Source projects. I love stuff like NanoHttpd.
• Unix, Amazon Elastic Compute cloud.
• Agile development. Ruby, Rails.
• Java NIO, extensive experience with Windows and Pentium.
• Highly optimized design of 3D algorithms.
• Macintosh Programmers Workshop, Think C, Think Pascal, Microsoft Visual C++.
• Class Libraries include MacApp and Think Class Libraries (C and Pascal), Microsoft Foundation Classes.
• Familiar with Univac 1100, PDP 11, H.P. 9800 series.
• Have owned and programmed Exidy Sorcerer (Z80 C.P.U.), Apple][, Atari 1200XL, Commodore 64, Lisa, Mac +. Extensive experience with development software on all these computers. Experience programming Apache web server modules and Linux OS.
• Toastmasters.
• etc.

Education:

Candidate for Masters of Science Degree

Computer System Engineering at the University of Southern California. Completed first year of two year program. Discontinued studies to pursue professional programming career.

Bachelor of Arts Degree

Physics, Occidental College, Los Angeles, California. Sigma Pi Sigma, Physics Honor Society.

Other Information:

Contributing Editor to MacTutor.

Wrote 15 articles about programming the Macintosh.

Patents

US Patent 6754772 - Distributed cache
US Patent Application 20070150706 - Reducing data hazards in pipelined processors to provide high processor utilization

Lifetime Electronics Buff.

Built digital circuits since age of 14, including Oscilloscope Kit, Digital Clock Kit. Designed and build Digital Tachometer. Three years of electronics shop in high school. Arduino, Maple, Raspberry Pi.
Russian language novice.

References

Available upon request.