

Dean Wallraff

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A software architect & developer with a wide and varied experience. Currently attending law school, looking for part-time work.

Skills & Knowledge

- Software architecture
- Computer & network security (CISSP)
- J2EE Developer
- Internet technology
- Geographic Information Systems
- Project lead and manager

Accomplishments

Scientific Technologies Corp., Tucson, AZ

Software Architect/Development Manager

1/07-5/07

Architect for DSMS, the company's flagship epidemiology software product (Java, Web-based). Supervised 9 full-time developers and 6 contract programmers. Managed relationships with several customers (state health departments). Developed J2EE Web-based applications.

Technologies: J2EE, Java, Eclipse, UML, Oracle, JSF, Kodo

Creative Information Concepts, Los Angeles, CA

Software Architecture Consultant

3/98 – 11/01, 5/03 – 12/06

For a Large Money-Center Bank: Lead architect on new global architecture for the bank's payments systems, including both high-value wire transfers and ACH. Developed service-oriented architecture based on service bus and XML, incorporating parts of existing systems with vendor-supplied and internally-built components. Documented existing architecture. Wrote project plan to implement this architecture over 3-year period. Participated in development of RFP and selection of off-shore vendor to re-engineer payment systems.

Served as overall **solution architect** and technical generalist for third-party in-sourcing implementations for Global Clearing, DDA, ACH, Liquidity applications. Performed architectural, security and performance reviews of individual systems and of overall 50-application nexus. Designed secure MQ-based interfaces to other banks' systems.

For a **Large Global Insurance Company:** Performed in-depth analyses of vendor applications for processing life insurance applications. Was lead architect on data-modeling study.

For several **Venture Capitalists:** Performed due technical diligence studies of potential acquisition target companies for financial investors. Evaluated technical architecture, software development practice and information security.

For a **Large Global Financial-Services Company:** Studied performance of large banking application as deployed worldwide over wide-area network. Analyzed performance of application, unix servers, database software and network. Designed, implemented automated volume test to simulate large numbers of users entering transactions. Ran test and analyzed results to determine network and server's contribution to the application's poor performance. Recommended network upgrades, which were subsequently performed by client.

Link2it Corp., Van Nuys, CA

Software Architect

12/01 – 4/03

Architected peer-to-peer application system for network appliances. Responsible for design and development of Scan2it OCR appliance. Designed security protocols for inter-appliance communication. Developed security infrastructure using X.509 certificates, in-house certificate

authority, public-key and symmetrical encryption. Designed and implemented secure, automated software update system. Developed appliance-box version of Linux.

Technologies: Java, Linux, C++

Wave Press, HyperDrive.com & SoftWare Market, Pasadena, CA

CTO & Founder 4/95 – 3/01

Architected and built substantial Internet B2B application (a Net market for wholesale software). Developed complex Web application using object-oriented analysis and design (UML), Java servlets, JDBC, and relational database. Wrote and administered security plan.

Built e-commerce applications for an Internet retailer of educational and entertainment software; developed software architecture, supervised Web site design and technology development, using a combination of Perl CGI and Java servlets. Administered unix Web server and internal Windows network.

Architected and implemented WaveCast™ Java/C client/server webcast control system, a secure CGI credit-card ordering system, a database-driven Web catalog, and an agent to automatically download sites from the World-Wide Web. Designed and managed development of World Wide Web sites for several organizations, including the official webcast of the 1998 Pasadena Rose Parade. Designed and coded in-house systems to maintain inventory and customer-order databases. Managed a staff of 6.

Technologies: Java, Perl, MySQL, C

Barry's Jewelers, Inc., Monrovia, CA Consultant 7/91 – 4/95

Designed and implemented IBM PC-based point-of-sale system for use in the stores of this large retail jewelry chain. Assessed needs and drafted requirements, scheduled project and interfaced with departments and executives in the company. Wrote user interface, application and data communications code. Began migration of system to client/server OODB under OS/2. Supervised 1 programmer. Did VAX applications programming in COBOL.

Technologies: C++, dbVista, VAX VMS, COBOL

Digital Equipment Corp., Marlboro, MA Consultant 3/88 - 12/88, 6/89 - 9/90

Implemented the data-link interface and the application-management interface for DECtrade, an OSI-compatible DEC product for distributing real-time financial quote information via Ethernet. Performed feasibility analysis for VMS-device-driver version of distribution system. Maintained Telerate and Reuters data feed handlers. Designed and implemented an object-oriented distributed data feed Kernel that coordinates via DECnet. Was responsible for functional and performance testing of the demo version. Designed and implemented test tools for system test of product.

Technologies: VAX VMS, C

IntraNet, Inc., Boston, MA President 4/87 - 2/88

Managed financial software company during growth from half a million to two million dollars in annual sales. Organized company into departments. Set up financial and administrative systems. Conceived and implemented the company's marketing program. Gave presentations to prospective customers and negotiated software contracts. Was responsible for overall company operations and P & L.

First Technology Corp., Cambridge, MA Banking Products Director 7/86 - 3/87

Was responsible for the design, implementation and marketing of a wire-room system providing integrated electronic messaging capabilities (message entry, printing, transmission, repair, routing) for large organizations. The system used IBM PC's as terminals, connected to the VAX via Ethernet, with a proprietary transport protocol. Managed a 20-person project team divided into 4 groups. Negotiated details of system's functionality with the first customer.

Designed and managed development of IBM PC multi-tasking system including integrated data base and screen handler.

Cyborg Corp., Newton, MA Consultant 4/85 - 5/86
Managed the implementation of a data-acquisition and analysis software package for the IBM PC. Established programming standards and scheduled and coordinated a team of 5 programmers. Implemented signal-processing and data-acquisition software.

Chase Manhattan Bank, New York Consultant 8/83 - 7/84
Designed VAX-based system for real-time delivery of account information to bank's customers world-wide. Supervised implementation team of 5 programmers. Implemented Tymenet interface. Taught two week-long courses for the bank's programmers on the NEXSYS (IntraNet) OLTP data-base system.

Bank of Boston, Boston, MA Consultant 1/82 - 8/83
Designed and implemented communications software to interface VAX money-transfer system to wire room and customer information systems. Wrote VMS device driver for 3270 emulation. Implemented full-duplex link between VAX and existing PDP-11 system.

Digital Music Systems, Inc., Boston, MA President & CTO 5/80 - 4/85
Conceived and designed innovative digital audio signal processing computer, peripheral equipment and synthesis/signal-processing software for PDP-11. Implemented hardware, including CPU using bit-slice and multiplier LSI's, 16-bit audio D/A and A/D boards, memory board, and host interfaces for Q-bus, Unibus, S-100 bus, and IBM PC. Implemented most of the signal synthesis and processing software. Designed and implemented VAX/VMS device driver. Responsible for all aspects of company management, marketing, planning and P & L.

Freyberg Systems Associates, Inc., New York, NY Consultant 7/78 - 5/80
Responsible for design and implementation of high-performance PDP-11 and microprocessor-based real-time telecommunications systems for electronic funds transfer networks. Supervised teams of up to 6 programmers. Was responsible for all aspects of project management, including estimation and bidding, specifications, technical design, implementation, and client interface. Wrote RSX-11M device driver supporting several types of BiSync protocol. Designed and implemented multi-tasking executive for 8080-based intelligent terminal, including device drivers for disk, keyboard, screen, and synchronous and asynchronous serial lines.

Computer Music Studio, Massachusetts Institute of Technology,
Cambridge, MA Technical Instructor 10/76 - 7/78
Developed innovative graphical score editor for music. Provided technical assistance to students using the studio. Wrote unix device driver for organ keyboard peripheral.

TMI Systems, Inc., Cambridge, MA Programmer/Analyst 9/75 - 10/76
Designed and implemented financial automation systems for major New York banks. Applications included foreign-exchange trading, security coupon collection, and electronic securities transfer.

Resource Consultants, Inc., Tucson, AZ Programmer/Analyst 1/75 - 5/75
Implemented software for geographic location analysis.

IRIS, Inc., Tucson, AZ Programmer/Analyst 2/73 - 12/74
Designed and participated in the implementation of a large medical information system. Supervised two programmers.

Technical

Software Architecture & Design

Strong experience with object-oriented analysis, design and programming using UML, Java and C++. Experience designing Service Oriented Architectures (SOAs – SOAP, WSDL, UDDI, XML).

Computer Languages & Databases

Very proficient in Java, C, C++, Perl, HTML, COBOL, FORTRAN, and BASIC. Extensive experience in assembly language programming on a variety of machines, including VAX (macro-32), PDP-11, 8080, Intel 80x86, and CDC 6400. Experience with MySQL and MS SQL Server and Oracle relational databases.

Internet

Deep knowledge of Internet technology, especially HTML, CGI, Perl, Java applets, servlets, JSP, JDBC, XML, Apache, Stronghold and Sun Java Web servers, relational databases.

Security

Substantial experience with all aspects of network and information security, including authentication, access control, encryption, certificates and PKI. CISSP security certification.

Systems Programming

Have done much systems programming, including device drivers and other kernel and exec-mode code, on the VAX under VMS and on PDP-11s under RSX-11M and Unix. Wrote custom multi-tasking operating system and I/O drivers for 8080-based intelligent terminal. Designed MS-DOS multi-tasker for the IBM PC.

Platforms

Deep knowledge of Linux and unix, VAX/VMS. Good working knowledge of Windows platforms and IBM mainframe.

Middleware

Working knowledge of Microsoft MSMQ, IBM MQ Series, Connect:Direct and associated security products for signing messages.

Networking & Data Communications

Have written communications device drivers and protocol control programs for several systems using BiSync, DDCMP and asynchronous protocols, including one for VAX/VMS. Implemented part of an ISO-compliant Ethernet multicast transport service. Wrote DECnet communications services for VMS distributed data feed kernel. Designed and implemented Java/C client-server system for webcast control using TCP and UDP protocols over the Internet. Designed secure inter-node application protocols for networks of appliance boxes.

Geographic Information Systems

Experience with ESRI ArcGIS desktop software for producing maps.

Management

Have successfully managed several teams of programmers in substantial software development projects, ranging up to a 20-person development effort. Have been President of four high-tech firms, with overall P & L responsibility. Have written many proposals and business plans, and given many lectures and presentations. Am a strong leader with excellent written and oral communications skills.

Publications

Wallraff, D. "Nedit — a Graphical Editor for Musical Scores." *Proceedings of the 1978 International Computer Music Conference*, pp. 410-429.

Wallraff, D. "The DMX-1000 Signal Processing Computer." *Computer Music Journal*, Vol 3, No. 4, pp. 44-49.

Wallraff, D. "The Effects of Primitive Size on the Overall Design of Real-Time Digital Audio Signal Processors." *Proceedings of the 1981 IEEE Conference on Acoustics, Speech and Signal Processing*, pp. 796-799.

Wallraff, D. "The Value of Net Marketplaces In the Software Distribution Channel," *Net Market Makers* (www.nmm.com), October, 2000.

Wallraff, D. "Marketplace for Wholesale Software Is Here," *Software Business*, March, 2001, pp. 45-46.

Wallraff, D. "Protect Systems by Knowing Cyber-Terrorist Tactics", *Los Angeles Business Journal*, Nov. 12, 2001, p. 41

Wallraff, D. "Taming the Wild West, A Proposal to Bring Safety to the Internet through Zones," *Internet World*, January, 2002, pp. 55-57.

Wallraff, D. "The Future of Internet Access," *TNTY Futures* (www.thenext20years.com/newsletter), Vol. 1, Issue 6, April 2002

Education

Bachelor of Arts degree from the University of Arizona, Tucson, Arizona. Major in (Greek and Latin) classics; minor in history. Degree includes 44 units of math, physics and computer science.

Took courses at M.I.T. (1976-1978) in electronic circuit analysis, signal processing and digital circuit design.

CISSP (Certified Information Systems Security Professional) certification, July, 2001.

J.D. Candidate, Class of 2010, Loyola Law School, Los Angeles, 2007-present.