

Richard M. Mathews

Northridge, CA

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Software Developer expert in Solaris x86 and Solaris SPARC kernel internals. Experienced in design and development of Real Time and Distributed Operating Systems, Networking, Device Drivers, Linux, Compilers. Saved a multi-million dollar account by understanding customer's needs. Able to reach diplomatic solutions to bring together people with conflicting priorities.

Lead Software Developer

2002-present

Micro Memory, Chatsworth, CA

- Led all of company's software development for network storage products, winning tens of \$millions in sales. Developed Linux and Solaris device drivers and proposed enhancements to standard file system internals (ext3, XFS, ReiserFS) to take best advantage of features of our storage products. Led development of Windows drivers. Suggested enhancements to hardware to improve performance and features. Worked with hardware engineers to debug new products. Worked closely with major customers to determine requirements and to provide technical advice for their software designs.

Software Staff Engineer

1992-2001

Sun Microsystems, Los Angeles, CA

- Won bonus and Achievement Award for helping Independent Hardware Vendors port enterprise quality device drivers to Solaris. Produced design guidelines for storage and network drivers. Led project which produced 1000 page book and 1 week course on writing Solaris device drivers. Promoted open source technologies.
- Turned around multi-million dollar project producing embedded O/S for Lucent, who planned to drop Sun's product; a year later, they were a satisfied customer and a partner in co-marketing products. Won bonus and Achievement Award for "Outstanding Work".
- Reduced backlog of department's high priority Solaris bugs by 60% without increasing backlog of other bugs. Managed Quality metrics for Solaris and ChorusOS.
- Led team overseeing delivery of x86 and PowerPC platform-specific features for Solaris. Managed highly successful Driver Updates that allowed new hardware to be supported between releases. Development, Release Engineering and Quality Assurance groups all reported to this team. Coordinated with other product teams and was primary liaison with OS/Network group. Set strategy and managed risk.
- Designed HTML/CGI solution for zero-administration servers for Network Computer clients.
- Promoted for leading group responsible for all technical aspects of completing merge of Intel and SPARC versions of Solaris into common source and bringing Solaris for Intel to product quality. Also responsible for improving performance during original Solaris Intel port.

Consultant Member of Technical Staff**1984-1992****Locus Computing Corp., Inglewood, CA**

- Promoted three times. Managed 12 UNIX kernel software designers/developers. Worked with customers and business partners. Developed new business. Coordinated with remote offices.
- Managed architects designing a modular product to provide distributed functionality for OSF's DCE. Coordinated project with designers at remote offices and at partners: IBM, HP, and Transarc.
- Designed and implemented clustering mechanism over LAN or WAN ensuring consistent Single System Image (SSI) viewed from anywhere in the cluster. Features included process transparency, remote execution capabilities, process migration, file replication, remote file system and device access, and load balancing.
- Developed IBM's AIX for PS/2 and System 370. Designed Memory Management system for AIX PS/2. Worked on porting O/S to 80386, file systems, NFS, device drivers, process control, assembly language support, trap/interrupt processing, and ANSI C, POSIX, and SVID standards conformance.

Education

Physics; Caltech; Pasadena, CA

Publications

Sun Microsystems. "Writing Device Drivers for the Solaris Operating Environment." Palo Alto: Sun Microsystems, 2001.

Walker, B., et al. "Extending DCE to Transparent Processing Clusters." in "Uniform 1992 Conference Proceedings" (January, 1992): pp 189-199.

Walker, Bruce J. and Richard M. Mathews. "Process Migration in AIX's Transparent Computing Facility (TCF)." in "IEEE Technical Committee on Operating Systems Newsletter" Vol. 3, No. 1 (Winter 1989): pp 5-7.

Butterfield, David A., and Richard M. Mathews. "Remote Tasking." in "The LOCUS Distributed System Architecture." Eds. Gerald J. Popek and Bruce J. Walker. Cambridge: MIT Press, 1985.

Technical Experience

Operating Systems:

UNIX (Solaris, AIX, SVR4, BSD), ChorusOS, Windows NT/95/98, MacOS, VMS, etc.

Languages and Tools:

C, Java, HTML, Perl, GNU tools, Korn/Bourne Shell, FORTRAN, Pascal, Assembler, etc.

CPUs:

Intel x86/Pentium, SPARC, PowerPC, RS/6000, IBM 370, VAX, etc.