Michael Schippling

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Development of Mechanical, Electronic, and Software Systems

Employment History

Hondo Fire and Rescue, Santa Fe, NM   2006-

The best -- In Our Humble Opinion -- volunteer fire department in Santa Fe County.

Member

Wildland and Structural firefighter. Emergency medical first responder.

Santa Fe Institute, Santa Fe, NM   2001-2004

SFI is the first and foremost institution for the study of Complex Systems, and their application to interdisciplinary, real-world problems.

Research Engineer

Evolved experiments to measure and evaluate learning behaviors.
Designed and constructed small robot cars for multi-agent learning experiments.
Developed an experimental data acquisition system using J2EE components.

IBM, Oakland, CA   2001-2002
Informix Software, Oakland, CA   1996-2001
Illustra Information Technologies, Oakland, CA   1995-1996

Informix purchased Illustra in early 1996. Informix was subsequently purchased by IBM in 2001. We produced the premiere Object-Relational Database Server on the market.

Extensibility Architect

Proposed and evaluated new features to be included in the ORDBMS products, especially with regard to facilitating user extensions.

Principal Software Engineer

Re-architected Informix Universal Server (IUS) Java VM communications link.
Improved data transport mechanism for IUS embedded Java JDBC.
Architectural support for C++ *DataBlades*, and COM, CORBA, and Java applications.
Prototyped the integration of the Java native thread VM into IUS.
Team leader for Informix IUS User Defined Routines group.

Server Development Engineer

Designed and developed the *Language Manager* module (patent #5,995,974) to install and execute *User Defined Routines* in the Informix Universal Server.
Responsible for Hierarchical Storage Management and the *SafetyBlade* client interface in the Illustra Server.

TRW Financial Systems, Oakland, CA   1990-1995

TFS developed large custom document image management systems. One of the most widely known of these projects was the American Express billing system

System Architect

Collected and analyzed system requirements. Designed products to meet the specifications.

Architected and implemented an *Infrastructure* for communications, and process control and monitoring. The system was used by multiple client projects.

Helped define a company-wide Development Methodology and Environment.

Engineering Manager

Managed engineering development teams for Optical Archive and Page Scanner building block components. Troubleshot projects for VP of Engineering.

Senior Design Engineer

Redesigned UNIX based Optical Storage Subsystem using Filenet jukeboxes and LMSI drives. Managed the implementation team.

Improvision, Emeryville, CA   1987-1990

Improvision developed document imaging components and consulted with many of the large systems integrators. We developed the Ricoh 510-520 series of page scanners, and had the first commercially available, widely portable CCITT (de) compression software.

Partner

Consulted with clients on document image systems architecture.

Developed device independent image display software for high-resolution monitors using IBM-PC computers, before the monitors were supported under Windows.

Developed portable 'C' libraries to control raster image scanners and printers.

Developed portable CCITT image compression software.

Wrote SunOS and DOS drivers for DMA and SCSI devices.

Supported hardware development, debugging, and testing.

Tera Systems, Berkeley, CA   1984-1986

My division of Tera produced custom engineering document management systems for use on the factory floor in large manufacturing operations. We delivered two systems that used optical (film) storage and retrieval before high volume magnetic and laser storage devices were available.

Systems Engineer

Configured systems and components to customer specifications.

Firmware Engineer

Developed real time operating system for 68000 raster image workstation using VRTX kernel.

Specified and implemented a general I/O system and drivers for film storage devices.

Implemented an interactive command shell with redirectable I/O.

Exploratorium, San Francisco, CA   1977-1983

The Exploratorium is arguably the best interactive science museum in the world. I had the privilege of working directly with the founder, Dr. Frank Oppenheimer, to design and build exhibits for the museum.

Chief Electronic Engineer

Supervised electronics shop staff.

Consulted on exhibit development with personnel from museums around the world.

Exhibit Designer

Designed, constructed, and maintained interactive museum exhibits, with special emphasis on pedagogy and ergonomics.

Redesigned and constructed most of the *Sound and Hearing* section of the museum.

University of California, Santa Cruz, CA   1975-1977

Associate in Music

Developed Electronic Music curriculum and studios.

Taught beginning and advanced classes, as well as independent study students.

Education

University of California at Santa Cruz   1970-1974

Bachelor of Arts

Aesthetic Studies, College Honors