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## Summary

With over 20 years of technical writing and software development experience, I offer the in-depth technical background needed to produce comprehensive and accurate documentation. My unique combination of technical and writing skills makes it possible to produce documents on aggressive schedules typical of software development environments. While I am competent in a number of styles, my skills are best suited to producing documentation for the developer audience, including APIs, SDKs, tutorials and development methodology guidelines. These skills are complemented by a thorough understanding of document lifecycle management and information architecture principles.

## Skills

Technical writing  
Structured documentation  
Document lifecycle management  
Documentation tool creation  
Web site design and implementation  
Software architecture and patterns  
Modeling (UML)  
Software design and programming  
Structured and OO methodologies  
Real-time, embedded software  
Physical layer and network protocols  
n-tier enterprise software  
Leadership and mentoring

## Publication Types

SDK/API reference manuals  
Online help: HTML Help, JavaHelp,  
Eclipse Help  
Tutorials and quick starts  
Programming guides  
Software development guidelines  
Functional Specifications  
Requirements documents  
Architecture specifications  
User's guides  
Style guides  
Web sites

## [Current Employer] • [USA] • 10/05 to present

*Application:* OpenGL graphics API, DO-178B certified.

*Position:* Senior Technical Writer

### *Activities:*

- ❑ Defined documentation set and process to support FAA-certified software: implemented structured environment using OpenOffice and XSLT to import/export XML files.
- ❑ Wrote OpenGL API and System Configuration documents, supporting multiple customers.
- ❑ Wrote 275-page OpenGL Driver Design Manual using developer interview, code analysis, and Doxygen output.

## ST Microelectronics • San Jose, CA • 5/05 to 10/2005

*Application:* Microcontroller hardware, firmware, and software tools.

*Position:* Consultant – Documentation Engineer

### *Activities:*

- ❑ Using FrameMaker with corporate templates and style guide, wrote Quick Starts and in-depth Design Guide for 8051-based microcontroller board and software.
- ❑ Developed code to exercise hardware and software APIs, which I used as documentation examples. In the process, I introduced the firmware development team to the Eclipse IDE.
- ❑ Wrote comprehensive User's Guide for a new software tool, producing 75 pages in three weeks and delivering ahead of schedule; provided usability feedback to developers.

## EMC<sup>2</sup> | SMARTS • White Plains, NY • 1/03 to 4/05

*Application:* Network management event correlation software.

*Position:* Senior Technical Writer/Information Architect

### *Activities:*

- ❑ Produced 700-page Java API in three months, using Javadoc, code examples I created, and UML. Included learning the business technology, development process, documentation process and Java language. This was the company's first online documentation and received favorable comment from both customers and internal users. Also, produced the corresponding Developer's Guide.
- ❑ Defined the documentation set for all API/SDK projects.
- ❑ Produced a programming language tutorial and a tutorial for developing plug-in software components for managed object monitoring.
- ❑ Produced Common Information Model (CIM) Reference Manual and XML Reference Manual.
- ❑ Defined layout and content guidelines for online documentation; wrote the style guide for online documentation. Defined and set up FrameMaker/WebWorks mappings and styles.
- ❑ Created automated document generation and post-production tools using Perl, making utilities available to the writer community.
- ❑ Defined the documentation directory structure and set up CVS for use as a documentation source control tool.

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## Documentation Tools

FrameMaker • WebWorks Pro •  
OpenOffice • Microsoft Office Suite •  
various text/HTML/XML editors •  
HTML Help Workshop • JavaHelp •  
ForeHelp • Javadoc • Doc++ • Doxygen  
• Acrobat • Visio • Paint Shop Pro •  
Photoshop • SnagIt

## Software Development Tools

GNU toolset • Clearcase/DDTS •  
CVS • lex/yacc/awk • Visual Studio •  
Eclipse • Rational Rose/UML •  
emulators • protocol/logic analyzers

## Operating Systems

Windows (all versions)  
Unix variants/Linux

### embedded O/S

Chorus•MTOS•pSOS•VRTX•VxWorks

## Programming/Scripting Languages

C/C++ • Java • PLM86 • Fortran •  
most Motorola and Intel assembly •  
Javascript • Perl • PHP/MySQL • HTML  
• XML + XSLT/XPath/XSL-FO

## Education

B.A. University of Maryland;  
major – English  
minor - zoology

California State University Northridge;  
Journalism and English courses  
to develop writing skills

## Corporate Training

Technical writing – McDonnell-Douglas  
Public speaking – Timeplex  
RUP and UML – Tellabs  
Clearcase – Fujitsu Nexion  
C/C++/Java/Fortran – various  
lex/yacc – AT&T  
Software architecture – Tellabs  
Code and design reviews – Timeplex  
Unigraphics CAD/CAM – McDon. Doug.  
Data General AOS – McDonnell-Douglas  
Univac Exec-8 – Jet Propulsion Laboratory

## Tellabs Optical Network Group • Hawthorne, NY • 4/00 to 6/02

*Application:* Metro DWDM optical transport system.

*Position:* Staff Engineer

*Activities:*

- ❑ Technical lead and software group manager responsible for resource scheduling and project technical design. Coordinated multi-site software development effort.
- ❑ Implemented BSP for MPC860 CPU modules.
- ❑ Designed and wrote device drivers for optical amplifier and control boards, including drivers for I2C and SPI buses.
- ❑ Designed and implemented ADSP-2183 firmware for SONET subrate multiplexer; worked closely with hardware engineers to define the CPLD/FPGA and framer interfaces.
- ❑ Designed and implemented Publish-Subscribe pattern as a replacement framework. Also, designed and implemented a host-based test environment for quick prototyping.
- ❑ Documented software architecture and development methodology, and provided training and presentations to promote the architecture.

## Lucent Technologies • Concord, MA • 5/99 to 1/00

*Application:* ATM interface to gigabit Ethernet switch.

*Position:* Consultant – Software Engineer

*Activities:*

- ❑ Designed and implemented hardware diagnostics program for LAN Emulation module. Wrote diagnostics User's Guide.

## Fujitsu Nexion • Acton, MA • 11/98 to 5/99

*Application:* ATM switch performance monitoring and analysis.

*Position:* Consultant – Software Engineer

*Activities:*

- ❑ Designed, implemented and documented a performance monitoring tool. This involved instrumenting the Chorus and VxWorks O/Ss to capture high-resolution (42 nsec) events. Events captured on the target were transmitted to a Sun workstation for analysis; I also provided the Sun data acquisition software.

## Sarnoff Corporation (RCA Labs) • Princeton, NJ • 5/96 to 10/98 & DIVA Systems Corporation • Palo Alto, CA

*Application:* HDTV video-on-demand interactive and broadcast TV.

*Position:* Consultant – Software Engineer

*Activities:*

- ❑ Documented HDTV device driver design specifications
- ❑ Responsible for backchannel communication interface to the video server. Implemented the physical, MAC, DLC and management layers, all state machine-driven. The MAC supported either a BPSK or RS-232 channel.
- ❑ Designed and implemented the remote control IR decoder, the NVM configuration database, and bit-bang, SPI and I2C drivers.
- ❑ Documented Windows NT application to receive, display and manage content broadcast by TV stations. This was a middleware specification of a COM implementation that included a Broadcast API for applications, to view and manage content, and a Service Provider specification for RF receiver device driver manufacturers.

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## Professional Affiliations

Society for Technical Communication

## Publication

Lindal, G.F., H.B. Hotz, D.N. Sweetnam, Z. Shippony, J.P. Brenkle, G.V. Hartsell, R.T. Spear, and W.H. Michael, Jr., "Viking Radio Occultation Measurements of the Atmosphere and Topography of Mars: Data Acquired During 1 Martian Year of Tracking," Journal of Geophysical Research, Vol. 84, pp. 8443-8456, 1979.

## References

(Letter of recommendation, performance reviews, contacts available)

## Formation • Moorestown, NJ • 1/95 to 1/96

*Application:* Air Traffic Control radar terminal interface.

*Position:* Consultant – Software Engineer

*Activities:*

- ❑ Designed and implemented real-time distributed O/S.
- ❑ Wrote software coding standards, operating system API and other interface specifications.
- ❑ Implemented documents as Windows Help files (ForeHelp) to support integrated development environment.
- ❑ Presented work at weekly FAA audits.

## AT&T Bell Laboratories • Holmdel, NJ • 10/92 to 11/94

*Application:* SONENT transport system, OA&M.

*Position:* Consultant – Software Engineer

*Activities:*

- ❑ Implemented, documented and maintained a software tool for automated code generation from requirements. The tool was implemented using lex and yacc.
- ❑ Documented ISO 9000 procedures, for which AT&T won the Malcom Baldrige Award.
- ❑ Maintained OA&M alarm subsystem software.

## Timeplex • Woodcliff Lake, NJ • 2/88 to 9/92

*Application:* Digital data PBX and software methodology.

*Position:* Lead Engineer

*Activities:*

- ❑ For 8-channel multiplexer card, implemented a real-time, multitasking operating system, RS-232 device drivers, diagnostics and common utilities, providing reliable, high-level services for application development. Based on performance analysis, specified hardware changes needed to meet performance requirements.
- ❑ In support of the ISO 9000 effort, defined and documented procedures for software development, including requirements specification, software architecture specification, design documents, C coding guidelines, test plans, and design and code review guidelines.
- ❑ Also, designed and implemented fax firmware for DSP56000-based T1 network interface card. This resulted in the first successful fax transmission through the Timeplex network.

## Micrognosis • Danbury, CT • 7/86 to 1/88

*Application:* Financial trader workstation.

*Position:* Lead Engineer

*Activities:*

- ❑ Defined workstation architecture and designed, documented and implemented pre-emptive, multitasking O/S, Ethernet (NIC) driver, device-independent I/O, boot ROM, hardware diagnostics and common utilities.
- ❑ Installed systems on trading floors in New York and Chicago.
- ❑ Installed VRTX operating system and ported software.

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**IPC Technologies • Centerbrook, CT • 8/84 to 5/86**

*Application:* Digital PABX operating system services.

*Position:* Principal Engineer

*Activities:*

- ❑ Designed, documented, coded and tested software for device-independent I/O, common fault reporting and component download and linking at runtime.
- ❑ Designed, documented, coded and tested device drivers for HDLC protocol over TDM link and SCSI tape driver.
- ❑ Captured system performance parameters and modified O/S scheduler to gain 4-fold increasing in call throughput.
- ❑ Maintained boot ROM and provided startup diagnostics.

**United Technologies Lexar • Westlake Village, CA • 6/81 to 8/84**

*Application:* Digital PABX MMI and call processing statistics.

*Position:* Member Technical Staff

*Activities:*

- ❑ Designed, documented, coded and tested software, which included a state machine-driven command line interpreter and a device driver for logging to tape.
- ❑ Ported subsystems to new operating system.
- ❑ Designed and implemented call processing statistics subsystem; the first implementation to provide accurate reporting for Lexar.

**McDonnell-Douglas Automation • Cypress, CA • 1/80 to 6/81**

*Application:* Numerical Control (NC) machining CAD/CAM.

*Position:* Lead Technical Writer

*Activities:*

- ❑ Interfaced with software engineers to develop CAD/CAM system user's guide; also used by training department.
- ❑ Wrote users' guides, training manuals and marketing brochures.
- ❑ Oversaw and directed the work of other writers, which included training them on the graphics design system.

**Cannon and Sullivan • Van Nuys, CA • 6/79 to 1/80**

*Application:* Department of Defense proposal document production

*Position:* Proofreader

*Activities:*

- ❑ Edited rough drafts for grammar, style and content.
- ❑ Typed, cut-and-paste and proofread final copy.
- ❑ Proof marked copy for revision

**Jet Propulsion Laboratory • Pasadena, CA • 7/75 to 1/80**

*Application:* Viking Mission to Mars

*Position:* Contractor – Technical Specialist

*Activities:*

- ❑ Developed trajectory analysis plotting software for Viking Mission to Mars navigation team to predict orbiter position, for pointing scientific instruments.
- ❑ Supported navigation engineers by running pre- and post-maneuver design and analysis programs, and presented results at maneuver design approval meetings for project management.
- ❑ I provided tracking data and predictions to project scientists, and received credit for my work in publications on the results of the Viking Mission.