

Resumé of Steven J. DeRose (August, 2008)

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Executive Summary

World-class domain expertise in electronic document systems. Editor or participant in major Internet standards including XML. Extensive experience and innovation with document systems, hypertext, information retrieval, and natural language analysis. Adept at designing architectures and high-leverage enhancements for functionality, maintainability, and usability. Effective communicator to all technical levels in person, on stage, and in print.

Selected Core Competencies

- XML, XSL, SAX, DOM, and most standards related to electronic documents.
- W3C, ISO, and other standards organizations and processes.
- Electronic document theory, practice, and research.
- Java, C/C++, Perl, SQL, and other programming languages.
- Software architecture, design, and engineering.

Employment History

2005-08 *XML Specialist, National Center for Biotechnology Information, National Institutes of Health, Bethesda, Maryland*

- Implemented tools in multiple languages for XML biomedical journal articles from receipt through online delivery. Rewrote many parts of the life-cycle software to handle highly complex books as well as articles, to unify user experience and expand system scope.
- Analyzed, documented, and refactored code for maintainability.
- Created innovative development and testing tools increasing staff efficiency.

1998-03 *Member, Technical Advisory Board, ContextMedia Corp., Providence, Rhode Island*

- Advised corporation on strategic vision and technical issues involving standards, metadata, hypertext, etc. Represented corporation to press and technical communities.

1998-01 *Chief Scientist, Brown University Scholarly Technology Group; Adjunct Associate Professor, Department of Computer Science.*

- Developed and communicated organizational vision.
- Vetted, designed, and developed scholarly and literary data and Websites.
- Served as principle investigator or co-PI on NEH, NSF, and other grants.

1996-99 *Chief Scientist, Inso Corporation, Electronic Publishing Systems, Providence, Rhode Island.*

- In charge of product architecture and design, standards compliance.
- Directed corporate involvement in industry standards, including internationalization and localization.
- Made presentations to Board, investment professionals, and others.
- Assisted in software engineering quality processes, CMM, ISO 9000, and cross-division product integration.

1989-96 *Senior System Architect, co-founder, and board member, Electronic Book Technologies, Providence, Rhode Island.*

- Designed and implemented the first SGML/XML browser, with integrated search engine, for large-scale documentation delivery (SGI, Novell, Boeing...)

- Guided EBT to grow profitably from 2 to 150 employees, and played a key role in the sale of the company and the following transition.
- Created and documented system architecture of EBT products for rendering, XML querying and retrieval, data conversion, version management, etc.
- Built strong corporate reputation through contacts with highly technical customers, industry conference presentations, training, Web and international standards work, and other high-visibility activities.

1987-89 *Design Consultant, CDWord Project, Dallas Theological Seminary.*

- Advised on information schemas, data conversion, and other aspects of a moderate-scale multilingual information retrieval system.
- Negotiated rights to incorporate key publications in the system.

Grants, Honors, and Awards

Eleven US Patents on document representation, IR, and rendering.

Principal Investigator or co-PI on grants from NEH and NSF.

Keynote speaker at the ACM Conference on Very Large Databases 1999, Edinburgh, and three other conferences.

Seybold Editors' "Achievement of the Year" and "Technology Trailblazer" Awards.

Society of American Archivists C.F.W. Coker prize.

Bentley Historical Library Fellow (Berkeley Finding Aids Project).

Selected Publications

1988-2007: Numerous papers at SGML, XML, and other electronic document conferences. Top 0.5% of most-cited CS authors (citeseer.ist.psu.edu).

1999 Steven J. DeRose and Andries van Dam. "Document structure and markup in the FRESS hypertext system." *Markup Languages* 1(1), (Winter): 7-32.

1997 Steven J. DeRose. *The SGML FAQ Book: Understanding the Foundation of HTML and XML*. Boston: Kluwer Academic. ISBN 0- 7923-9943-9.

1997 Steven J. DeRose. "Navigation, Access, and Control Using Structured Data." In *American Archivist* 60(33): 298-309. Chicago: Soc. of American Archivists.

1994 Steven J. DeRose, David G. Durand. *Making Hypermedia Work: A Users' Guide to HyTime*. Boston: Kluwer Academic. ISBN 0-7923-9432-1.

1989 Steven J. DeRose. "Expanding the Notion of Links." In *Proceedings of Hypertext '89*, Pittsburgh, PA. Baltimore, MD: ACM Press.

1988 Steven J. DeRose. "Grammatical Category Disambiguation by Statistical Optimization." *Computational Linguistics* 14 (1): 31- 39.

1987 James H. Coombs, Allen H. Renear, and Steven J. DeRose. "Markup Systems and the Future of Scholarly Text Processing." *Communications of the ACM* 30 (11): 933-947 (often reprinted).

Professional Activities

Senior Member, Association for Computing Machinery. Past vice-chair of SigWeb.

Member, Institute of Electrical and Electronic Engineers.

Frequent speaker/teacher, including ACM Professional Development seminars.

Education

Brown University, Providence, RI

Sc.B./A.B. Computer Science/Linguistics magna cum laude 1982

A.M. Computational Linguistics 1986

Ph.D. Computational Linguistics 1989

Dissertation: pioneered use of Hidden Markov Models for assigning part-of-speech in English and Greek, methods now standard in AI.