Linda G. Shapiro

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Education:

Ph.D. Computer Science, University of Iowa, 1974
M.S. Computer Science, University of Iowa, 1972
B.S. Mathematics, University of Illinois, 1970

Current Position: Professor of Computer Science and Engineering, Professor of Electrical Engineering, University of Washington

Research Interests: Content-based Image Retrieval, Multimedia Database Systems, Computer Vision, Pattern Recognition and Learning, Artificial Intelligence

Recent Courses Taught: Image Understanding, Artificial Intelligence, Database Systems, Data Structures, Programming Languages, Computer Programming I

Honors: Fellow of the IEEE, 1996
Pattern Recognition Society Best Paper Awards: 1984, 1989, 1995

Recent Grants:

- IRI-9711771, "Efficient Content-Based Image Retrieval," National Science Foundation, $247,000, 9-1-97 to 8-31-2000.

- "Learning Patterns for Computer-Aided Diagnosis," Washington Technology Center and Neopath, Inc., $79,862, 7-1-97 to 6/30/99, principal investigator, "Integrated Machine Vision for Manufacturing IV: Measurement, Inspection, and OCR Performance Evaluation,"

- Boeing Commercial Airplane Group, $89,000, 9-16-96 to 9-15-98, principal investigator with R. M. Haralick.

Recent Service Activities:

- Co-Chair, Biomedical and Multimedia Applications Track of the *International Conference on Pattern Recognition* to be held in 2002.

- Chair, *IEEE Computer Society Technical Committee on Pattern Analysis and Machine Intelligence*, 1993-1995

- Program Co-Chair, *IEEE Conference on Computer Vision and Pattern Recognition*, 1994

- Editorial Board Member of *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 1993-1997 and of *Pattern Recognition*, ongoing

- Editor of *CVGIP: Image Understanding*, 1990-1993 and of *CVGIP*, 1983-1990 and Current Editorial Board Member of *CVIU*

Recent Journal Publications:

Berman, A. and L. G. Shapiro, "A Flexible Image Database System for Content-Based Retrieval," n *Computer Vision and Image Understanding*, Vol. 75, Nos. 1-2, 1999, pp. 175-195.

Ji, Q., M. S. Costa, R. M. Haralick, and L. G. Shapiro, "An Integrated Linear Technique for Pose Estimation from Different Geometric Features," to appear in *International Journal of Pattern Recognition and Artificial Intelligence*, June, 1999.

Mustafa, A. A., L. G. Shapiro, and M. A. Ganter, "3D Object Identification with Color and Curvature Signatures," *Pattern Recognition*, Vol 32, No. 3, 1999, pp. 339-355.

Modayur, B. and L. G. Shapiro, "PERFORM: A Fast Object Recognition Method Using Intersection of Projection Errors," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Vol. 19, No. 5, 1997, pp. 499-506.

Allen, R., L. Cinque, S. Tanimoto, L. G. Shapiro, and D. Yasuda, "A Parallel Algorithm for Graph Matching and its MasPar Implementation," *IEEE Transactions on Parallel and Distributed Systems*, Vol. 8, No. 5, May, 1997, pp. 490-501.

Jakobovits, R. M., L. M. Lewis, J. P. Ahrens, L. G. Shapiro, S. L. Tanimoto, J. F. Brinkley, "A Visual Database Environment for Scientific Research," *Journal of Visual Languages and Computing*, Vol. 7, 1996, pp. 361-375.

Yasuda, D., L. Cinque, L. G. Shapiro, S. Tanimoto, and R. Allen, "An Improved Algorithmn for Relational Distance Graph Matching," *Pattern Recognition*, Vol. 29, No. 2, 1996, pp. 349-359.

Recent Conference Publications:

Berman, A. and L. G. Shapiro, "Efficient Content-Based Retrieval: Experimental Results," *Proceedings of the IEEE Workshop on Content-Based Access of Image and Video Databases*, June 1999, pp. 55-61.

Berman, A. and L. G. Shapiro, "Triangle-Inequality-Based Pruning Algorithms with Triangle Tries," *Proceedings of the SPIE Conference on Storage and Retrieval for Image and Video Databases VII*, 1999, pp. 356-365.

Neal, P. J., L. G. Shapiro and C. Rosse. "The Digital Anatomist Structural Abstraction: a Scheme for the Spatial Description of Anatomical Entities", *Proceedings 1998 American Medical Informatics Association Annual Symposium*, Lake Buena Vista, FL, 7-11 November 1998.

Rosse, C., L. G. Shapiro and J. F. Brinkley. "The Digital Anatomist Foundational Model: Principals for Defining and Structuring its Concept Domain," *Proceedings 1998 American Medical Informatics Association Annual Symposium*, Lake Buena Vista, FL, 7-11 November 1998.

Pulli, K, H. Abi-Rached, T. Duchamp, L. G. Shapiro, and W. Stuetzle, "Acquisition and Visualization of Colored 3D Objects," *Proceedings of ICPR98*, August 1998, pp. 11-15.

Berman, A. and L. G. Shapiro, "A Flexible Image Database System for Content-Based Retrieval," *Proceedings of ICPR98*, August 1998, pp. 894-898.

Chou, Y. and L. G. Shapiro, "Probabilistic Relational Indexing," *Proceedings of ICPR98*, August 1998, pp. 1331-1335.

Ji, Q., M. S. Costa, R. M. Haralick, and L. G. Shapiro, "An Integrated Technique for Pose Estimation from Different Geometric Features," *Proceedings of Vision Interface '98*, Vancouver, June 18-20, 1998, pp. 77-84.

Berman, A and L. G. Shapiro, "Selecting Good Keys for Triangle-Inequality-Based Pruning Algorithms," *Proceedings of the IEEE Workshop on Content-Based Access of Image and Video Databases*, January 1998, pp. 12-19.

Pulli, K., M. Cohen, T. Duchamp, H. Hoppe, J. McDonald, L. Shapiro, and W. Stuetzle, "Surface Modeling and Display from Range and Color Data," Keynote Address at ICIAP'97, published in *Lecture Notes in Computer Science 1310*, Springer-Verlag, Berlin, 1997, pp. 385-397.

Pulli, K., M. Cohen, T. Duchamp, H. Hoppe, L. Shapiro, and W. Stuetzle, "View-based Rendering: Visualizing Real Objects from Scanned Range and Color Data," *Proceedings of the 8th Eurographics Workshop on Rendering*, June, 1997.