VASILEIOS MEGALOOIKONOMOU
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Department of Computer and Information Sciences
Temple University
314 Wachman Hall
1805 N. Broad Street
Philadelphia, PA 19122
215-204-5774, 215-204-5082 (fax)
vasilis@temple.edu
http://www.cis.temple.edu/∼vasilis

RESEARCH INTERESTS

Data Mining, Data Compression, Multimedia Database Systems, Biomedical Informatics.

TEACHING INTERESTS

Knowledge Discovery and Data Mining, Data Compression, Database Systems, Machine Learning, Multimedia Databases, Biomedical Informatics, Artificial Intelligence, Theory of Computation, Automata Theory and Formal Languages, Image Processing, Pattern Recognition.

EDUCATION

Jan. 1992 – Aug. 1997. **Ph.D. in Computer Science**, University of Maryland, Baltimore County. Research Topic: Quantization for Distributed Estimation with Unknown Observation Statistics. Developed a compression scheme for distributed estimation satisfying communication constraints in the case of unknow observation statistics. Developed algorithms based on a generalization of classification and regression trees. Advisor: Yaacov Yesha. GPA: 4.0/4.0.

Jan. 1992 – Jan. 1995. **M.S. in Computer Science**, University of Maryland, Baltimore County. Research Topic: Kolmogorov Incompressibility Method in Formal Proofs.
Considered applications of the incompressibility method of Kolmogorov complexity in the areas of lower bounds, average case analysis of algorithms, formal language theory, and random graphs. Advisor: Yaacov Yesha. GPA: 4.0/4.0.

Sept. 1986 – June 1991. **B.E. in Computer Engineering and Informatics**, University of Patras, Greece. Diploma Thesis: Neural Networks and Biological Information Processing. Advisor: John S. Nicolis. GPA: 8.78/10.0.

POSITIONS HELD - ACADEMIC EXPERIENCE

July 2005 – Present. **Associate Professor** with tenure, Department of Computer and Information Sciences, Center for Information Science and Technology, Temple University, Philadelphia, Pennsylvania.

Sept. 2000 – June 2005. **Assistant Professor**, Department of Computer and Information Sciences, Center for Information Science and Technology, Temple University, Philadelphia, Pennsylvania.

POSITIONS HELD - ACADEMIC EXPERIENCE (CONT'D)

Sept. 2002 – Present. **Founding Director**, The Data Engineering Laboratory (DEnLab – denlab.temple.edu) in the Department of Computer and Information Sciences, and the Center for Information Science and Technology, Temple University, Philadelphia, Pennsylvania.

Sept. 1999 – Apr. 2004. **Research Faculty:**

The Dartmouth Experimental Visualization Laboratory (DEVLAB).
The Brain Imaging Lab, Dartmouth Medical School.

Sept. 1999 – Aug. 2000. **Visiting Assistant Professor**, Department of Computer Science, Dartmouth College, Hanover, New Hampshire.

Sept. 1997 – Sept. 1999. **Faculty Research Associate**, Neuroimaging Laboratory, Department of Radiology, Johns Hopkins University School of Medicine, Baltimore, Maryland.

AWARDS, HONORS & FELLOWSHIPS

– National Science Foundation, Faculty Early Career Development (CAREER) Award, 2003. Title: Extracting Patterns from Medical Image Databases, $401,422 for 5 years.
– Member of Upsilon Pi Epsilon, Computer Science Honor Society.
– Member of the Technical Chamber of Greece (Association of Licensed Engineers of Greece).
– Academic Achievement Fellowship, Fund of State Fellowships, Greece (Sept. 1988 - July 1991).
– Rotary Club Fellowship, Greece (Dec. 1991).

PUBLICATIONS

JOURNAL ARTICLES

1. L. Latecki, V. Megalooikonomou, Q. Wang, D. Yu, "An Elastic Partial Shape Matching Technique", *Pattern Recognition*, Vol. 40, No. 11, pp. 3069-3080, 2007.

2. V. Megalooikonomou, D. Kontos, D. Pokrajac, A. Lazarevic and Z. Obradovic, "An adaptive partitioning approach for mining discriminant regions in 3D image data", *Journal of Intelligent Information Systems*, (accepted).

3. V. Megalooikonomou, D. Kontos, "A model for distributed analysis of medical image data across clinical information repositories", *IEEE Engineering in Medicine and Biology Magazine*, Vol. 26, No. 5, pp. 36-42, 2007.

4. D. Kontos, V. Megalooikonomou, M. Sobel, "A Statistical Approach for Selecting Discriminative Features of Spatial Regions of Interest", *Intelligent Data Analysis*, Vol. 11, No. 2, pp. 111-135, 2007.

5. Q. Wang and V. Megalooikonomou, "A Dimensionality Reduction Technique for Efficient Time Series Similarity Analysis", *Information Systems*, (accepted).

6. C. Faloutsos and V. Megalooikonomou, "On Data Mining, Compression, and Kolmogorov Complexity", *Data Mining and Knowledge Discovery*, Tenth Anniversary Issue, Vol. 15, No. 1, pp. 3-20(18), 2007.

7. D. Kontos and V. Megalooikonomou, "Fast and effective characterization for classification and similarity searches of 2D and 3D spatial region data", *Pattern Recognition*, Vol. 38, No. 11, pp. 1831-1846, 2005.

8. D. Kontos, Q. Wang, V. Megalooikonomou, A. H. Maurer, L. C. Knight, S. Kantor, R. S. Fisher, H. P. Simonian, H. P. Parkman, "A Tool for Handling Uncertainty in Segmenting Regions of Interest in Medical Images" *International Journal of Intelligent Systems Technologies*, Special Issue on Intelligent Image and Video Processing and Applications: The Role of Uncertainty, Vol. 1, Nos. 3/4, pp. 194-210, 2006.

9. L. J. Latecki, V. Megalooikonomou, R. Miezianko, D. Pokrajac, "Using Spatiotemporal Blocks to Reduce the Uncertainty in Detecting and Tracking Moving Objects in Video", *International Journal of Intelligent Systems Technologies*, Special Issue on Intelligent Image and Video Processing and Applications: The Role of Uncertainty, Vol. 1, Nos. 3/4, pp. 376-392, 2006.

10. D. Pokrajac, V. Megalooikonomou, A. Lazarevic, D. Kontos, Z. Obradovic, "Applying Spatial Distribution Analysis Techniques to Classification of 3D Medical Images", *Artificial Intelligence in Medicine*, Vol. 33, No. 3, pp. 261-280, Mar. 2005.

11. K. Kumaraswamy, V. Megalooikonomou and C. Faloutsos, "Fractal Dimension and Vector Quantization", *Information Processing Letters*, Vol. 91, No. 3, pp. 107-113, 2004.

12. V. Megalooikonomou and Y. Yesha, "Space Efficient Quantization for Decentralized Estimation by a Multi-sensor Fusion System", *Information Fusion*, Vol. 5, No. 4, pp. 299-308, 2004.

13. H. P. Simonian, A. H. Maurer, L. C. Knight, S. Kantor, D. Kontos, V. Megalooikonomou, R. S. Fisher, H. P. Parkman, "Simultaneous Assessment of Gastric Accommodation and Emptying: Studies with Liquid and Solid Meals", *Journal of Nuclear Medicine*, Vol. 45, No. 7, pp. 1155-1160, 2004.

14. V. Megalooikonomou and Y. Yesha, "Quantization for Distributed Estimation using Neural Networks", *Information Sciences*, Vol. 148, No. 1-4, pp. 185-199, 2002.

15. V. Megalooikonomou and Y. Yesha, "Quantizer Design for Distributed Estimation with Communication Constraints and Unknown Observation Statistics", *IEEE Transactions on Communications*, Vol. 48, No. 2, pp. 181-184, 2000.

16. V. Megalooikonomou, J. Ford, L. Shen, F. Makedon and A. Saykin, "Data mining in brain imaging", *Statistical Methods in Medical Research*, Vol. 9, No. 4, pp. 359-394, 2000.

17. V. Megalooikonomou, C. Davatzikos, and E. H. Herskovits, "A Simulator for Evaluation of Methods for the Detection of Lesion-Deficit Associations", *Human Brain Mapping*, Vol. 10, No. 2, pp. 61-73, 2000.

18. E. H. Herskovits, V. Megalooikonomou, C. Davatzikos, A. Chen, R. N. Bryan, J. Gerring, "Is the spatial distribution of brain lesions associated with closed-head injury predictive of subsequent development of attention-deficit hyperactivity disorder? Analysis with brain image database", *Radiology*, Vol. 213, No. 2, pp. 389-394, 1999.

REFEREED PUBLICATIONS IN PROCEEDINGS

19. L. J. Latecki, Q. Wang, S. Koknar-Tezel, and V. Megalooikonomou, "Optimal Subsequence Bijection", Proceedings of the *IEEE International Conference on Data Mining (ICDM)*, Omaha, NE, 2007.

20. J. Zhang and V. Megalooikonomou, "An effective and efficient technique for searching for similar brain activation patterns", Proceedings of the *IEEE International Symposium on Biomedical Imaging (ISBI)*, 2007.

21. Q. Wang, E. Karamani-Liacouras, E. Miranda, U.S. Kanamala, V. Megalooikonomou, "Classification of brain tumors using MRI and MRS", Proceedings of the *SPIE Conference on Medical Imaging*, 2007.

22. V. Megalooikonomou, J. Zhang, D. Kontos, P.R. Bakic, "Analysis of texture patterns in medical images with an application to breast imaging", Proceedings of the *SPIE Conference on Medical Imaging*, 2007.

23. D. Kontos, V. Megalooikonomou, A. Javadi, P. Bakic, A. Maidment, "Classification of Galactograms Using Fractal Properties of the Breast Ductal Network", Proceedings of the *IEEE International Symposium on Biomedical Imaging: From Nano to Macro (ISBI)*, Arlington, Virginia, April 6-9, pp. 1324-1327, 2006.

24. P. Bakic, D. Kontos, V. Megalooikonomou, A. Maidment, "Comparison of Methods for Classification of Breast Ductal Branching Patterns" Proceedings of the *8th International Workshop on Digital Mammography (IWDM)*, Manchester, England, June 18-21, 2006, Lecture Notes in Computer Science, Vol. 4046, pp. 634-641, 2006.

25. V. Megalooikonomou, D. Kontos, J. Danglemaier, A. Javadi, P. A. Bakic, A.D.A. Maidment, "A representation and classification scheme for tree-like structures in medical images: An application on branching pattern analysis of ductal trees in x-ray galactograms", Proceedings of the *SPIE Conference on Medical Imaging*, Vol. 6144, 61441H, San Diego, California, Feb. 2006.

26. L. J. Latecki, V. Megalooikonomou, Q. Wang, R. Lakaemper, C. A. Ratanamahatana, E. Keogh, "Elastic Partial Matching of Time Series", Proceedings of the *9th European Conference on Principles and Practice of Knowledge Discovery in Databases (PKDD'05)*, Porto, Portugal, *Lecture Notes in Computer Science*, Vol. 3721, pp. 577-584, 2005.

27. V. Megalooikonomou, Q. Wang, G. Li, C. Faloutsos, "A Multiresolution Symbolic Representation of Time Series", in Proceedings of the *21st International Conference on Data Engineering (ICDE)*, Tokyo, Japan, pp. 668-679, 2005.

28. V. Megalooikonomou, D. Kontos, N. DeClaris and P. Cano, "Incorporating Domain Knowledge in Developing Robust Neural Network Models for Peptide-Allele Binding Prediction", Proceedings of the *2005 IEEE Symposium on Computational Intelligence in Bioinformatics and Computational Biology (CIBCB'05)*, San Diego, California, Nov. 2005.

29. L. J. Latecki, V. Megalooikonomou, Q. Wang, R. Lakaemper, C. A. Ratanamahatana, and E. Keogh, "Partial Elastic Matching of Time Series", Proceedings of the *Fifth IEEE International Conference on Data Mining (ICDM'05)*, Houston, Texas, pp. 701-704, Nov. 2005.

30. V. Megalooikonomou, D. Kontos, "Integrating clinical information repositories: A framework for distributed analysis of medical image data", Proceedings of the *5th International Network Conference (INC 2005), Special Session on Image, Signal and Distributed Data Processing for Networked eHealth Applications*, Samos Island, Greece, pp. 545-552, July 5-7, 2005.

31. Q. Wang, V. Megalooikonomou, D. Kontos, " A Medical Image Retrieval Framework," Proceedings of the *2005 IEEE International Workshop on Machine Learning for Signal Processing (MLSP05)*, Mystic, Connecticut, pp. 233-238, Sept. 28-30, 2005.

32. Q. Wang, V. Megalooikonomou, "A clustering algorithm for intrusion detection", Proceedings of the *SPIE Conference on Data Mining, Intrusion Detection, Information Assurance, and Data Networks Security*, Orlando, Florida, USA, March 28 - April 1, Vol. 5812, pp. 31-38, 2005.

33. D. Kontos, V. Megalooikonomou and J. Gee, "Reducing the computational cost for statistical medical image analysis: An MRI study on the sexual morphological differentiation of the corpus callosum", Proceedings of the *18th IEEE International Symposium on Computer-Based Medical Systems (CBMS05)*, Trinity College, Dublin, Ireland, pp. 282-287, June 23-24, 2005.

34. Q. Wang, V. Megalooikonomou, G. Li, "A Symbolic Representation of Time Series", Proceedings of the *8th IEEE International Symposium on Signal Processing and its Applications (ISSPA05)*, Sydney, Australia, pp. 28-31, Aug. 28-31, 2005.

35. D. Kontos, Q. Wang, V. Megalooikonomou, A. H. Maurer, L. C. Knight, S. Kantor, R. S. Fisher, H. P. Simonian, H. P. Parkman, "A 3D Image Analysis Tool for SPECT Imaging", Proceedings of the *SPIE Conference on Medical Imaging*, San Diego, CA, pp. 839-847, Feb. 12-17, 2005.

36. V. Megalooikonomou, G. Li, Q. Wang, "A Dimensionality Reduction Technique for Efficient Similarity Analysis of Time Series Databases", Proceedings of the *13th Conference on Information and Knowledge Management (CIKM) 2004*, Washington, DC, pp. 160-161, 2004.

37. D. Kontos, V. Megalooikonomou, D. Pokrajac, A. Lazarevic, Z. Obradovic, O. B. Boyko, J. Ford, F. Makedon, A. J. Saykin, "Extraction of Discriminative Functional MRI Activation Patterns and an Application to Alzheimer's Disease", *7th Annual International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI'04)*, Rennes-Saint Malo, Sept. 26-30, Proceedings, Part II, Lecture Notes in Computer Science 3217, Vol. 2, pp. 727-735, 2004.

38. R. Lakamper, L. J. Latecki, V. Megalooikonomou, Q. Wang, X. Wang, "Learning Descriptive and Distinctive Parts of Objects with a Part-Based Shape Similarity Measure", Proceedings of the *IASTED 6th International Conference on Signal and Image Processing (SIP'04)*, Honolulu, Hawaii, Aug. 2004.

39. Q. Wang, D. Kontos, G. Li and V. Megalooikonomou, "Application of Time Series Techniques to Data Mining and Analysis of Spatial Patterns in 3D images", in Proceedings of the *International Conference on Acoustics, Speech and Signal Processing, (ICASSP'04)*, pp. 525-528, May 2004.

40. K. Kumaraswamy, C. Faloutsos, G. Shan and V. Megalooikonomou, "Relation between Fractal Dimension and Performance of Vector Quantization", in Proceedings of the *Data Compression Conference (DCC'04)*, Salt Lake City, UT, pp. 547, Mar. 2004.

41. D. Kontos, V. Megalooikonomou, M. Sobel, Q. Wang, "An MCMC Feature Selection Technique for Characterizing and Classifying Spatial Region Data", *Joint International Workshops on Syntactic and Structural Pattern Recognition (SSPR) and Statistical Pattern Recognition (SPR)*, Lisbon, Portugal, Proceedings, Lecture Notes in Computer Science 3138, pp. 379-387, 2004.

42. D. Kontos and V. Megalooikonomou, "Fast and Effective Characterization of 3D Region of Interest in Medical Image Data", in Proceedings of the *SPIE International Symposium on Medical Imaging 2004*, San Diego, CA, Feb. 2004, Volume 5370 Medical Imaging, pp. 1324-1331, 2004.

43. D. Kontos, V. Megalooikonomou, F. Makedon, "Computationally Intelligent Methods for Mining 3D Medical Images", in Lecture Notes in Artificial Intelligence, 3025, *3rd Hellenic Conference on Artificial Intelligence*, Samos Island, Greece, pp. 72-81, May 2004.

44. D. Kontos, V. Megalooikonomou, N. Ghubade, C. Faloutsos, "Detecting discriminative functional MRI activation patterns using space filling curves", in Proceedings of the *25th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBS)*, Cancun, Mexico, pp. 963-967, Sept. 2003.

45. J. Ford, H. Farid, F. Makedon, L.A. Flashman, T.W. McAllister, V. Megalooikonomou and A.J. Saykin, "Patient Classification of fMRI Activation Maps", 6th Annual International Conference on *Medical Image Computing and Computer Assisted Intervention (MICCAI'03)*, Montreal, Canada, Proceedings, Part II, Lecture Notes in Computer Science 2879, pp. 58-65, Nov. 2003.

46. K. Kumaraswamy, V. Megalooikonomou, "Fractal Dimension and Vector Quantization", in Proceedings of the *Workshop on Fractals and Self Similarity in Data Mining, 9th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD'03)*, Washington, DC, USA, pp. 24-27, Aug. 24-27, 2003.

47. V. Megalooikonomou, H. Dutta, D. Kontos, "Fast and Effective Characterization of 3D Region Data", in Proceedings of the *IEEE International Conference on Image Processing (ICIP)*, Rochester, NY, pp. 421-424, Sept. 2002.

48. V. Megalooikonomou, "Evaluating the performance of association mining methods in 3-D medical image databases", in Proceedings of the *2nd SIAM International Conference on Data Mining (SDM)*, Arlington, VA, pp. 474-494, Apr. 2002.

49. V. Megalooikonomou, D. Pokrajac, A. Lazarevic, and Z. Obradovic, "Effective classification of 3-D image data using partitioning methods", in Proceedings of the *SPIE Conference on Visualization and Data Analysis*, San Jose, CA, pp. 62-73, Jan. 2002.

50. A. Lazarevic, D. Pokrajac, V. Megalooikonomou and Z. Obradovic, "Distinguishing Among 3-D Distributions for Brain Image Data Classification", in *Proceedings of the 4th International Conference on Neural Networks and Expert Systems in Medicine and Healthcare*, Milos Island, Greece, pp. 389-396, June 2001.

51. L. Shen, L. Cheng, J. Ford, F. Makedon, V. Megalooikonomou, T. Steinberg, "Mining the Most Interesting Web Access Associations", in *Proceedings of the World Conference on the WWW and Internet (WebNet)*, San Antonio, Texas, pp. 489-494, Nov. 2000.

52. V. Megalooikonomou, C. Davatzikos, and E. H. Herskovits, "Mining Lesion-Deficit Associations in a Brain Image Database", in *Proceedings of the ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)*, San Diego, CA, pp. 347-351, Aug. 1999.

53. V. Megalooikonomou and Y. Yesha, "Design of Neural Network Quantizers for a Distributed Estimation System with Communication Constraints", in *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP)*, Seattle, Washington, pp. 3469-3472, May 1998.

54. V. Megalooikonomou and Y. Yesha, "Quantization for Distributed Estimation with Communication and Storage Constraints", in *Proceedings of the 35th Annual Allerton Conference on Communications, Control, and Computing*, Urbana, Illinois, pp. 102-112, Sept. 1997.

55. V. Megalooikonomou and Y. Yesha, "Quantization for Distributed Estimation with Unknown Observation Statistics", in *Proceedings of the 31st Annual Conference on Information Sciences and Systems*, Baltimore, Maryland, pp. 138-143, Mar. 1997.

PEER REVIEWED BOOK CHAPTERS

56. V. Megalooikonomou and E. H. Herskovits, "Mining Structure-Function Associations in a Brain Image Database", chapter in *Medical Data Mining and Knowledge Discovery*, pp. 153-179, K.J. Cios (ed.), Springer-Verlag, 2001.

REFEREED EXTENDED ABSTRACTS AND OTHER PUBLICATIONS

57. Q. Wang, V. Megalooikonomou, D. Kontos, E. Miranda, V. Calhoun, "Similarity Searches in Brain Image Databases", *Human Brain Mapping Conference (OHBM'06)*, Florence, Italy, June 11-15, 2006, *Neuroimage*, Vol. 31, Suppl. 1, pp. S173, 2006.

58. Q. Wang, V. Megalooikonomou, E. Miranda, E. Karamani-Liacouras, U. S. Kanamalla, "Classification of Brain Tumors in MR Images", *Human Brain Mapping Conference (OHBM'06)*, Florence, Italy, June 11-15, 2006, *Neuroimage*, Vol. 31, Suppl. 1, pp. S172, 2006.

59. D. Kontos, V. Megalooikonomou and J. Gee, "Effective Reduction of Statistical Tests for Morphological Analysis: Application to a Study of the Corpus Callosum", *Human Brain Mapping Conference (OHBM'05)*, Toronto, Canada, June 12-16, 2005, *Neuroimage*, Vol. 26, Suppl. 1, pp. 35, 2005.

60. V. Megalooikonomou, D. Kontos and A. Saykin, "Characterizing 3D Regions of Interest in fMRI Activation Maps", *Human Brain Mapping Conference (OHBM'05)*, Toronto, Canada, June 12-16, 2005, *Neuroimage*, Vol. 26, Suppl. 1, pp. 38, 2005.

61. V. Megalooikonomou, Q. Wang, D. Kontos, G. Li, J. Ford, A. Saykin, "Analysis of Brain Image Data using Sequence Analysis Techniques", *Human Brain Mapping Conference (OHBM'04)*, Budapest, Hungary, June 13-17, 2004, *Neuroimage*, Vol. 22, Suppl. 1, pp. e1850, 2004.

62. D. Kontos, V. Megalooikonomou, Q. Wang, J. Ford, F. Makedon, A. Saykin, "Identifying Discriminative fMRI Activation Signatures in Alzheimer's Disease: Studying a Series of Semantic Decision Tasks", *Human Brain Mapping Conference (OHBM'04)*, Budapest, Hungary, June 13-17, 2004, *Neuroimage*, Vol. 22, Suppl. 1, pp. e2219-e2220, 2004.

63. V. Megalooikonomou, D. Kontos, D. Pokrajac, A. Lazarevic, Z. Obradovic, O. Boyko, A. Saykin, J. Ford, F. Makedon, "Classification and Mining of Brain Image Data Using Adaptive Recursive Partitioning Methods: Application to Alzheimer Disease and Brain Activation Patterns", *Human Brain Mapping Conference (OHBM'03)*, New York, NY, June 18-22, 2003, *Neuroimage* Vol. 19, No. 2, Suppl. 1, pp. e1958-e1959, 2003.

64. H.P. Simonian, S.B. Kantor, L.C. Knight, A.H. Maurer, V. Megalooikonomou, R.S. Fisher, H.P. Parkman, "Simultaneous assessment of gastric accomodation and emptying of solid and liquid meals", *Digestive Diseases Week (DDW'03)*, Orlando, Florida, May 17-22, 2003, *Gastroenterology*, Vol. 124, No. 4, A53-A53 Suppl. S, Apr. 2003.

65. A.H. Maurer, H.P. Simonian, S.B. Kantor, L.C. Knight, V. Megalooikonomou, R.S. Fisher, H.P. Parkman, "Simultaneous Assessment of Gastric Accomodation and Emptying of a Solid Meal: A New Scintigraphic Test", *Society of Nuclear Medicine (SNM'03) 50th Annual Meeting*, New Orleans, Louisiana, June 21-25, 2003.

66. J. Ford, F. Makedon, V. Megalooikonomou, A. Saykin, L. Shen, T. Steinberg, "Spatial Comparison of fMRI Activation Maps for Data Mining: A Methodology of Hierarchical Characterization and Classification", *7th Annual Meeting of the Organization for Human Brain Mapping (OHBM'01)*, Brighton, UK, June, 2001, *Neuroimage*, Vol. 13, No. 6, S1302, 2001.

67. A. Saykin, L. Flashman, L. Shen, J. Ashburner, M. Sparling, A. Donnelly, F. Makedon, D. Isecke, J. Ford, V. Megalooikonomou, T. McAllister, "Hippocampal Shape in Schizophrenia: A Deformation-Based Morphometric Analysis", *7th Annual Meeting of the Organization for Human Brain Mapping (OHBM'01)*, Brighton, UK, June, 2001, *Neuroimage*, Vol. 13, No. 6, S 1096, 2001.

68. D. Pokrajac, A. Lazarevic, V. Megalooikonomou, Z. Obradovic, "Classification of Brain Image Data using measures of distributional distance", *7th Annual Meeting of the Organization for Human Brain Mapping (OHBM'01)*, Brighton, UK, June, 2001, *Neuroimage*, Vol. 13, No. 6, S 222, 2001.

69. E. H. Herskovits, V. Megalooikonomou, C. Davatzikos, J. Gerring, R. N. Bryan, "Evaluation of Closed-Head Injury Data with a Brain-Image Database: Statistical Analysis and Simulation", presented at the *5th International Conference on Functional Mapping of the Human Brain (HBM'99)*, Dusseldorf, Germany, June 1999.

70. E. H. Herskovits, V. Megalooikonomou, C. Davatzikos, R. N. Bryan, J. Gerring, "Spatial distribution of brain lesions associated with closed-head injury: Association with subsequent development of attention-deficit hyperactivity disorder", *Radiology*, Vol. 209, Suppl. S, p. 479, Nov. 1998.

71. K. A. Elliget and V. Megalooikonomou, "Automated identification and visualization of actin cytoskeleton injury in anoxic NRK-52E renal epithelial cells via volume investigation", *Molecular Biology of the Cell*, Vol. 8, Suppl. S, pp. 269a, Nov. 1997.

TECHNICAL REPORTS

72. V. Megalooikonomou, "Kolmogorov Incompressibility Method in Formal Proofs: A Critical Survey", *Technical Report TR CS-97-01*, Department of Computer Science and Electrical Engineering, University of Maryland Baltimore County, Jan. 1997.

73. V. Megalooikonomou, K. A. Elliget and N. DeClaris, "Image Based Study of Cytoskeleton Injury", *Technical Report TR MI-96-25*, Division of Medical Informatics, Department of Pathology, School of Medicine, University of Maryland at Baltimore, Sept. 1996.

WORKS SUBMITTED FOR PUBLICATION

D. Kontos and V. Megalooikonomou, "Detecting and Classifying Discriminative Regions of Interest in Medical Images with Reduced Number of Statistical Tests", *Medical Image Analysis*.

V. Megalooikonomou and Q. Wang, "A Performance Evaluation Framework for Association Rule Mining in Spatial Data", *Data and Knowledge Engineering*.

E. Miranda, G. Shan, V. Megalooikonomou, "Performing Vector Quantization Using a Reduced Data Representation", *Image and Vision Computing*.

INVITED TALKS

1. "Toward Intelligent Information Systems for Studying Normal and Disease States of the Human Brain", keynote talk, International Workshop on Pervasive Technologies for the support of Alzheimer's Disease and Related Disorders Sufferers, 5th Pan-Hellenic Joint Conference on Alzheimer's Disease and Related Disorders, Thessaloniki, Feb. 2007.

2. "Extracting Patterns from Medical Images", Medical Image Processing Group (MIPG), Department of Radiology, University of Pennsylvania, Mar. 2006.

3. "Data Mining in Spatial and Temporal Databases", Department of Computer Engineering and Informatics, University of Patras, Greece, Jan. 2006.

4. "Detecting Patterns in Brain Images", School of Communication, Information and Library Sciences, Rutgers University, Nov. 2005.

5. "Detecting Patterns in Brain Images", Department of Radiology, Research Seminar Series, University of Pennsylvania, Nov. 2005.

6. "Clustering and Partitioning for Spatial and Temporal Data Mining", 1st Bertinoro Workshop on Data-Mining (DaMn), University of Bologna, Residential Center, Bertinoro, Italy, Oct. 2005.

7. "Data Mining in 3D Medical Image Databases", Department of Computer Engineering and Informatics, University of Patras, Greece, June 2004.

8. "Mining of Brain Image Data", A Decade of Neuroscience Informatics: Looking Ahead, The National Institutes of Health, Bethesda, MD, Apr. 2004.

9. "Extracting Patterns from 3-D Medical Image Databases", Computer Science Department, Dartmouth College, Hanover, NH, July 2003.

10. "Data Mining in 3-D Medical Image Databases", General Robotics, Automation, Sensing, and Perception (GRASP) Laboratory, University of Pennsylvania, July 2001.

11. "Data Mining in Brain Imaging", Center for Computer Science and Applied Mathematics, Temple University, PA, May 2001.

12. "Data Mining in Multimedia/Medical Databases", Department of Statistics, Temple University, PA, Mar. 2001.

13. "Data Mining in Multimedia/Medical Databases", Center for Information Science and Technology, Temple University, PA, Oct. 2000.

14. "Mining Structure-Function Associations in a Brain Image Database", Department of Computer Science, University of Houston, TX, Apr. 2000.

15. "Data Mining Methods and their Applications to Brain Mapping" Department of Electrical Engineering and Computer Science, University of Wisconsin-Milwaukee, WI, Apr. 2000.

16. "Mining Structure-Function Associations in a Brain Image Database", Department of Computer Science, Florida State University, Tallahassee, FL, Apr. 2000.

17. "Data Mining Methods and their Applications to Brain Mapping" Department of Computer Science, State University of New York at Albany, NY, Mar. 2000.

18. "Mining Structure-Function Associations in a Brain Image Database", Department of Computer and Information Sciences, Temple University, Philadelphia, PA, Mar. 2000.

19. "Mining Lesion-Deficit Associations in a Brain Image Database", Department of Computer Science, University of North Carolina at Charlotte, NC, Mar. 2000.

20. "Mining Lesion-Deficit Associations in a Brain Image Database", Department of Computer and Information Science, Polytechnic University, Brooklyn, NY, Feb. 2000.

21. "Discovering Associations between Structures and Functions in the Human Brain", Department of Cognitive Neuroscience, Dartmouth College, Hanover, NH, Feb. 2000.

22. "Mining Lesion-Deficit Associations in a Brain Image Database", Department of Computing and Information Science, Queen's University, Ontario, Canada, Jan. 2000.

23. "Seeing through the Forest: Mining Lesion-Deficit Associations in a Brain Image Database", Department of Computer Science and Electrical Engineering, University of Maryland, Baltimore County, MD, Dec. 1999.

24. "Seeing through the Forest: Mining Lesion-Deficit Associations in a Brain Image Database", CIMIC (Center for Information Management, Integration and Connectivity), Rutgers University, NJ, June 1999.

25. "Target-based compression: Issues in Quantization for Distributed Estimation", Department of Computer Science and Engineering, University of Colorado, Denver, CO, May 1999.

26. "Target-based compression: Quantization for distributed estimation with unknown observation statistics", Department of Computer Science, Dartmouth College, NH, Feb. 1999.

27. "Designing neural network quantizers for distributed estimation", Department of Computer Science, Georgetown University, DC, Feb. 1999.

28. "Storage Consideration in Quantization for Distributed Estimation", School of Electrical Engineering and Computer Science, Ohio University, OH, July 1998.

29. "Quantization for Distributed Estimation with Unknown Observation Statistics", Department of Computer Science and Software Engineering, Auburn University, AL, May 1998.

30. "Quantization for Distributed Estimation", Department of Computer Science, Wayne State University, MI, Jan. 1998.

31. "Distributed Estimation in the case of Unknown Statistics", Department of Electrical Engineering and Computer Science, University of Evansville, IN, July 1997.

32. "Quantizers for Distributed Estimation", School of Computer and Information Science, Georgia Southwestern State University, GA, June 1997.

GRANTS AND CONTRACTS

CURRENT SUPPORT

1. *Principal Investigator,* (collaborative grant with C. Faloutsos, National Science Foundation (NSF), "Collaborative Research: Mining Biomedical and Network Data Using Tensors", Amount: $615,441, ($307,456 for Temple) 9/2007-8/2010.

2. *Principal Investigator,* National Institutes of Health, (1 R01 MH068066), 1/2004-12/2007. Title: "Large Scale Data Analysis for Brain Images". Co-Investigators: Z. Obradovic, O. Boyko, J. Gee and D. Woodruff-Pak. Amount: $1,284,246.

3. *Principal Investigator,* National Science Foundation, (IIS-0237921), 9/2003-8/2008. Title: "CA-REER: Extracting Patterns from Medical Image Databases". Amount: $401,422.

4. *Principal Investigator,* National Science Foundation, Research Experiences for Undergraduates (REU), supplemental award to "CAREER: Extracting Patterns from Medical Image Databases", (IIS-0237921), 6/2006-8/2006. Amount: $12,000.

PAST SUPPORT

5. *Principal Investigator,* National Science Foundation, Research Experiences for Undergraduates (REU), supplemental award to "CAREER: Extracting Patterns from Medical Image Databases", (IIS-0237921), 6/2005-8/2005. Amount: $12,000.

6. *Co-Principal Investigator,* National Science Foundation, (IIS-0083423), 5/2001 - 4/2004. Title: "Mining Human Brain Data: Analysis, Classification, and Visualization of Probabilistic 3D Objects". Principal Investigator: F. Makedon. Co-Principal Investigators: V. Megalooikonomou, A. Saykin. Amount: $654,000.

7. *Principal Investigator,* National Science Foundation, Research Experiences for Undergraduates (REU), supplemental award to "CAREER: Extracting Patterns from Medical Image Databases", (IIS-0237921), 6/2004-8/2004. Amount: $6,000.

8. *Co-Principal Investigator,* National Science Foundation, (ANI-0124390), 9/2001-9/2004. Title: "High Performance Network Connection for Knowledge Discovery Research", Principal Investigator: E. Kwatny. Co-Principal Investigators: V. Megalooikonomou, Z. Obradovic, R. Stafford. Total Amount: $353,100 ($150,000 from NSF, $203,100 from Temple Univ. as matching funds).

9. *Principal Investigator,* Pennsylvania Department of Health, Temple University Return of Overhead Research Incentive Grant Program, 2/2002-6/2003. Title: "Mining 3-D Medical Image Data". Amount: $42,463.

10. *Co-Investigator,* Lockheed Martin Corporation, 1/2003-5/2004. Title: "Visualization and Analysis of Commercial Flight Data". Principal Investigator: P. Wolfgang. Co-Investigators: V. Megalooikonomou, Z. Obradovic, S. Vucetic, R. Lakamper. Amount: $55,000.

11. *Co-Investigator,* National Institutes of Health, (R01 AG13743), 1999-2002. Title: "Spatially Oriented Database for Digital Brain Images". Principal Investigator: E. Herskovits. Co-Investigators: V. Megalooikonomou, C. Davatzikos. Amount: $848,138.

PENDING APPLICATIONS FOR FUNDING

Principal Investigator, Sun Microsystems. Title: "Medical Image Databases and Data Mining - Education and Research". Amount requested: $82,235.

Principal Investigator, (with P. Bakic and A. Maidment, National Science Foundation (NSF), "Collaborative Research: Integrating the Analysis of branching properties and texture for studying natural tree-like structures in images", requested $899,030, 5/2007-4/2011.

TEACHING

COURSES TAUGHT:

Sept. 2000 – Present. Department of Computer and Information Sciences, Temple University, Philadelphia, Pennsylvania:

> Mathematical Concepts in Computing II (CIS166 - undergraduate) - Fall 2004, Spring 2005
>
> Principles of Database Systems (CIS331 - undergraduate) - Spring 2004
>
> Advanced Topics in Databases - Multimedia Databases (CIS750 - graduate seminar) - Fall 2003
>
> Knowledge Discovery and Data Mining (CIS671/664 - graduate) - Spring 2002, Spring 2007
>
> Artificial Intelligence (CIS587 - graduate) - Fall 2001, Spring 2003
>
> Principles of Data Management (CIS616/661 - graduate) - Spring 2001, Fall 2002, Spring 2006
>
> Knowledge Discovery and Data Mining (CIS595 - graduate seminar, CIS671, CIS664) - Fall 2000, Spring 2002, Spring 2007

Sept. 1999 – Aug. 2000. Department of Computer Science, Dartmouth College, Hanover, New Hampshire:

> Discrete Mathematics (CS21 - undergraduate) - Summer 2000
>
> Database Systems (CS33 - undergraduate and graduate) - Spring 2000
>
> Artificial Intelligence (CS44 - undergraduate) - Winter 2000
>
> Computer Graphics (CS43 - undergraduate) - Fall 2000
>
> Theory of Computation (CS49 - undergraduate) - Fall 2000

NEW COURSES DEVELOPED:

> Advanced Topics in Databases - Multimedia Databases (graduate course) - Fall 2003.
>
> Knowledge Discovery and Data Mining (graduate course) - Spring 2002.

INDEPENDENT STUDY COURSES:

Sept. 2000 – Present. Department of Computer and Information Sciences, Temple University, Philadelphia, Pennsylvania:

– Michael Barnathan, "Extracting discriminative texture features from normal and pathological brain tissue", Fall 2007
– Michael Barnathan, "Establishing correlations between texture and topology in medical images of the breast", Fall 2007
– Li An, "Analysis of gene expression data", Spring 2007
– Michael Barnathan, "Data mining techniques in medical imaging", Fall 2006
– Ryan McCornack, "Content-Based Image Retrieval in a Social Photo Sharing Environment", Summer 2006
– Jingjing Zhang, "Image Analysis", Spring 2006
– Shweta Moonat, "Medical Image Data Management", Spring 2006
– Asha Seshadri, "Spatial and Temporal Data Analysis", Spring 2006
– Eirini Karamani Liacouras, "Analysis of Medical Data", Spring 2005
– Despina Kontos, "Detection and Classification of Regions of Interest in Medical Image Data", Spring 2004
– Qiang Wang, "Data Mining in Brain Imaging", Spring 2004
– Guoqiang Shan, "Improving Vector Quantization", Spring 2004
– Guo Li, "Compression and Similarity Analysis of Time Series", Spring 2003
– Qiang Wang, "Hierarchical Methods in Similarity Analysis of Time Series", Spring 2003
– Weijun He, "Bayesian Techniques", Fall 2002
– Haimonti Dutta, "Data Mining in Medicine", Fall 2001
– Guo Li, "Vector Quantization", Fall 2001
– Despina Kontos, "Knowledge Discovery Issues in 3D Spatial Data", Spring 2002

DOCTORAL DISSERTATIONS SUPERVISED:

– Despina Kontos, "Pattern Analysis for Regions of Interest in Spatial Data with Applications to Medical Images", (res. proposal, Prelim I, Oct. 2004, Prelim II, Dec. 2005, final defense, Jun. 2006). Research assistantship, 9/2001 - 6/2006.
– Qiang Wang, "A Framework for Temporal and Spatial Data Mining with its Applications". (res. proposal, Prelim I, Feb. 2005, Prelim II, Mar. 2006, final defense, Nov. 2006). Research assistantship, 9/2002 - 1/2007.

DOCTORAL DISSERTATIONS SUPERVISING:

– Erickson Miranda, "Mining Medical Image Data", research assistantship, 9/2005 - 8/2006.
– Li An, "Analysis of Gene Expression Data" (formal title to be determined), research assistantship, 9/2006-present.
– Guo Li, "Classification and Similarity Retrieval of Time Sequences and Video", (res. proposal, Prelim I, May 2005). Research and teaching assistantship, 9/2002 - 8/2005.
– Michael Barnathan, "A Medical Information Management System", (formal title to be determined), Presidential Fellowship, Dean's Scholarship, 9/2006 - present.

MASTER'S THESES SUPERVISED:

– Jingjing Zhang, "An Information System for Managing Medical Data", M.S., Temple University, 2007.

MASTER'S PROJECTS SUPERVISED:

– Michael Barnathan, "A Web-Accessible Framework for Automated Storage and Texture Analysis of Biomedical Images", M.S., Temple University 2007.
– Allen Ge Yan, "Galactogram Mammogram Imaging Data Mining System", M.S., Temple University, 2007.
– Troy Schrader, "A Methodology for Searching Medical Images", M.S., Temple University, 2007.
– Ryan McCornack, "Content-Based Image Retrieval in a Social Photo Sharing Environment", M.S. Temple University, 2006
– Eirini Karamani Liacouras, "Analysis of medical image data from MRI and MR spectroscopy", M.S., Temple University, 2005.
– Parveen Jahan Lily, "An Efficient Data Reduction Technique for Large Data Tables", M.S., Temple University, 2004.
– Weijun He, "Bayesian Techniques for Shape Recognition", M.S., Temple University, 2003.
– Kia Hall, "Fractals and Data Management", M.S., Temple University, 2003.
– Despina Kontos, "Information Retrieval and Analysis in Spatial Databases", M.S., Temple University, 2002.
– Guo Li, "Time Series Analysis using Vector Quantization", M.S., Temple University, 2002.
– Zheng (Sonia) Yuan, "Learning Bayesian Networks", M.S., Temple University, 2002.
– Haimonti Dutta, "Data Mining in Medicine", M.S., Temple University, 2002.
– Raste Sameer, "Pattern Analysis", 2002.
– Jiesong Zhu, "Discovery of Pattern Similarities in Time Series Data of Stock Market", M.S., Temple University, 2002.

DOCTORAL COMMITTEE SERVICE:

– Hongbo Xie, "Functional Characterization of Large Scale Biological Data", (res. proposal; final defense). Supervisor: Z. Obradovic. Temple University, 2007.
– Kang Pang, "Learning from Protein Structure Related Data", (res. proposal; final defense). Supervisor: Z. Obradovic. Temple University, 2006.
– Predrag Radivojac, "Classification and Knowledge Discovery in Protein Databases", (res. proposal; final defense). Supervisor: Z. Obradovic. Temple University, 2004.
– James Ford, "Patient Classification from fMRI Brain Activation Patterns", (final defense). Supervisor: F. Makedon. Dartmouth College, 2003 (external thesis committee member).
– Dragoljub Pokrajac, "Spatial-temporal data mining", (final defense). Supervisor: Z. Obradovic. Temple University, 2002.
– Aleksandar Lazarevic, "Integration of Multiple Prediction Models in Centralized and Distributed Knowledge Discovery in Databases", (final defense). Supervisor: Z. Obradovic. Temple University, 2001.

MASTER'S THESIS COMMITTEE SERVICE:

–Shweta Moonat, "Investigation of Neural Correlates of Bladder Control Using Functional Magnetic Resonance Imaging (fMRI) in Patients with Overactive Bladder". Supervisors: L. Bai and F. Mohamed. Temple University, 2007.
– James Shain, "Automatic Detection and Retrieval of Moving Lips in Digital Video". Supervisor: F. Makedon. Dartmouth College, 2000.
– Ling Cheng, "TROI - A Training and Research System for Tracing Regions of Interest in Brain Images", Supervisor: F. Makedon. Dartmouth College, 2000.

UNDERGRADUATE STUDENT RESEARCH SUPERVISED:

Research Opportunities for Undergraduates:

– Joseph Dangelmaier, "Analysis of Tree-like Structures", supported through NSF's Research Experiences for Undergraduate (REU) Program, 6/04-8/04.
– Aicha Fofana, "Databases for Tree-like Structures", Alliance for Minority Participation (supported through NSF), 6/05-8/05.
– Ailar Javadi, "Automated Similarity Analysis of Mammograms", supported through NSF's Research Experiences for Undergraduate (REU) Program, 6/05-8/05.
– Dan Mulhern, "Techniques for Spatial Data Mining", supported through NSF's Research Experiences for Undergraduate (REU) Program, 6/05-8/05.
– Ailar Javadi, "Analysis of Tree-like structures", supported through an NIH grant, 9/05-8/06.
– Dan Mulhern, "Spatial and temporal data analyis", supported through an NIH grant, 9/05-8/06.

OTHER TEACHING EXPERIENCE:

Jan. 1992 – Aug. 1997. Teaching Assistant, Computer Science and Electrical Engineering Department, University of Maryland, Baltimore County:

Assisted teaching graduate and undergraduate courses in Analysis of Algorithms, Automata Theory and Formal Languages, Discrete Structures, Symbolic and Algebraic Processing, Numerical Analysis, Coding Theory and Applications, Operating Systems, Computer Architecture, and Introduction to Computers and Programming.

Jul. 1995 – Jan. 1996. Medical Informatics Network – Cooperative Information System, Department of Pathology, School of Medicine, University of Maryland at Baltimore:

Delivered lectures in a graduate course on medical applications of relational databases. Trained staff of the Medical Informatics Lab in Unix and Network administration.

Oct. 1989 – Sept. 1990. Computer Technology Institute (CTI) and Computer Engineering and Informatics Department, University of Patras, Greece:

Trained freshmen undergraduates in Unix, MS-DOS, and Netware OS. Trained members of the Computer Center in Netware OS management.

SERVICE

SERVICE TO THE PROFESSION:

– **CONFERENCE ORGANIZATION:**

– Program co-Chair (Bioengineering), 3rd IEEE Symposium on Bioinformatics and Bioengineering (BIBE), Washington, DC, March 10-12, 2003.
– Organization Committee (Registration Chair), 12th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining, Philadelphia, PA, August 23-26, 2006.
– Chair of Special Session on Intelligent Analysis of Medical and Biological Data, 3rd IFIP Conference on Artificial Intelligence Applications and Innovations (AIAI), Athens, Greece, June 7-9, 2006.

– **CONFERENCE - PROGRAM COMMITTEE MEMBER:**

– PC member, SIAM Data Mining Conference (SDM), 2004, 2005, 2006, 2008.
– PC member, IEEE Symposium on Computational Intelligence and Data Mining (CIDM) 2007.
– PC member, IEEE 21st International Conference on Advanced Information Networking and Applications (AINA-07).
– PC member, IEEE International Conference on Bioinformatics and Biomedicine (BIBM) 2007.
– PC member, IEEE 21st International Conference on Advanced Information Networking and Applications (AINA) 2007.
– PC member, 7th IEEE International Symposium on Bioinformatics and Bioengineering (BIBE), Boston, MA, Oct. 14-17, 2007.
– PC member, 17th European Conference on Machine Learning (ECML) and 10th European Conference on Principles and Practice of Knowledge Discovery in Databases (PKDD), 2006.
– PC member, International Workshop on Biomedical Data Engineering (BMDE), 2005, part of IEEE International Conference on Data Engineering (ICDE) 2005.
– PC member, 9th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), Washington, DC, Aug. 24-27, 2003.
– PC member, International Conference on Machine Learning and Applications (ICMLA), Los Angeles, California, June 23-24, 2003.
– PC member, 3rd IEEE Symposium on Bioinformatics and Bioengineering (BIBE), Washington, DC, March 10-12, 2003.
– PC member, the World Multiconference on Systemics, Cybernetics and Informatics (SCI) and the International Conference on Information Systems Analysis and Synthesis (ISAS), Orlando, Florida, 1998 and 1999.

– **JOURNAL REVIEWER:**

  – IEEE Transactions on Information Theory.
  – IEEE Transactions on Knowledge and Data Engineering.
  – IEEE Transactions on Pattern Analysis and Machine Intelligence.
  – IEEE Transactions on Systems, Man and Cybernetics.
  – IEEE Transactions on Signal Processing.
  – IEEE Transactions on Medical Imaging.
  – IEEE Transactions on Information Technology in Biomedicine.
  – Data and Knowledge Engineering.
  – Statistical Analysis and Data Mining.
  – Image and Vision Computing.
  – Information Sciences.
  – Information Processing Letters.
  – Human Brain Mapping.
  – NeuroImage.
  – Journal of Systems and Software.
  – Journal of Electronic Imaging.
  – Archives of General Psychiatry.
  – Pattern Recognition.

– **GRANT PROPOSAL REVIEW PANEL MEMBER:**

– The National Science Foundation (NSF), Directorate for Computer and Information Science and Engineering, Division of Information and Intelligent Systems, 2001, 2002 and 2003.
– The National Institutes of Health (NIH), National Centers for Biomedical Computing, May 2005.
– The National Institutes of Health (NIH), Collaborations with National Centers for Biomedical Computing, Oct. 2006.

– **GRANT PROPOSAL REVIEWER:**

– The United States National Aeronautics and Space Administration (NASA), 2004.
– Kentucky Science and Engineering Foundation (KSEF), 2005, 2007.

– **CONFERENCE REVIEWER:**

– The 5th IEEE International Conference on Advanced Learning Technologies (ICALT) '05.
– The IBM Centre for Advanced Studies Conference (CASCON) '97.
– International Conference of Distributed Computing Systems '96.
– Digital Libraries Forum '95, '96.
– International Conference on Tools for Artificial Intelligence '95.
– ACM SIGCOMM '94 Conference.

SERVICE TO THE UNIVERSITY:

Sept. 2000 – Present: Temple University, Philadelphia, Pennsylvania:

– (2007) Faculty Advisory Panel Participant for eRA@TU: Faculty Advisory Panel member for the web-based electronic research administration at Temple Univ.

– (2001-2004) Establishment of Internet2 high performance network at Temple University: Project initiated by E. Kwatny (PI), Z. Obradovic, V. Megalooikonomou, and R. Stafford, CIS Dept. to support knowledge discovery research. Membership and connectivity costs were funded by a grant from the National Science Foundation with matching funds from Temple University (see "GRANTS AND CONTRACTS").

SERVICE TO THE DEPARTMENT:

– *Sept. 2000 – Present:* Department of Computer and Information Sciences, Temple University, Philadelphia, Pennsylvania:

* COMMITTEES:

  - Graduate Committee (2005-present)
  - Research Committee (2001-2003, 2005-present)
  - Chair, CIS Colloquium Committee (2005-2007)
  - Ad-Hoc Mid-Term Tenure Review Committee (2005-2007)
  - Merit Committee (2004-2005, 2006-2007)
  - Personnel Committee (2005-2007)
  - Promotion and Tenure Committee (2002-2003, 2006-present)
  - Faculty Search Committee (2001-2003, 2006-2007)
  - Equipment Committee (2000-2002)
  - Ph.D. Thesis Committee Member: Aleksandar Lazarevic (Temple University)
  - Ph.D. Thesis Committee Member: Pokrajac Dragoljub (Temple University)
  - Ph.D. Thesis Committee Member: Predrag Radivojac (Temple University)

* OTHER SERVICE:

  · Webmaster for the CIS Department, Temple University (2001-2002): Headed the redesign of the departmental web page and coordinated all efforts to keep it up to date.

– *Sept. 1999 – Aug. 2000:* Department of Computer Science, Dartmouth College, Hanover, New Hampshire:

* COMMITTEES:

  - Master's Thesis Committee Member: James Shain, Ling Cheng.
  - Ph.D. Thesis Committee Member: James Ford, 2003 (external committee member).

PROFESSIONAL MEMBERSHIPS AND AFFILIATIONS

– Member of the Association for Computing Machinery (ACM).
– Member of the Institute of Electrical and Electronics Engineers (IEEE).
– Member of the Society for Industrial and Applied Mathematics (SIAM).
– Member of the Organization for Human Brain Mapping (OHBM).
– Member of the Technical Chamber of Greece (Association of Licensed Engineers of Greece).

OTHER WORK EXPERIENCE

Jul. 1995 – Sept. 1997. Medical Informatics Network – Cooperative Information System, Department of Pathology, School of Medicine, University of Maryland at Baltimore:

Investigator, image processing and knowledge based computer support for the Cytoskeleton Injury Study, Department of Pathology.

Researcher, DICOM Reference Architecture Project for the Imaging Physics Division of Radiology.

Lead systems engineer, project manager, and coordinator of the work with collaborative units of the School of Medicine: departments of Pathology, Radiology, Surgery, Medicine, and Physiology.

Jun. 1993 – Jun. 1995. Division of Medical Informatics, School of Medicine, University of Maryland at Baltimore:

Unix systems administrator (software, hardware and network maintenance).

Unix systems programmer of a high performance, distributed, computing facility (SunOS, Solaris, SPARCstations).

Database designer and administrator, database programmer (Oracle RDBMS, SQL, Pro*C, C).

Oct. 1988 – Dec. 1991. Computer Technology Institute (CTI), Patras, Greece:

Oct. 1990 – Dec. 1991. VMS systems programmer, networking. Performed several software engineering projects for the Computer Center.

Oct. 1989 – Sept. 1990. Systems manager of a network of personal computers running NOVELL NetWare OS. Assisted in the administration of a network of SUN workstations running SunOS. Evaluation of H/W and S/W products for LANs of PC's.

Oct. 1988 – Sept. 1989. Computer Center Operator.