

ACADEMIC CURRICULUM VITAE
OF
RAMON A. MATA-TOLEDO
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Present Work Address: Computer Science Department
James Madison University (MSC 4103)
Harrisonburg, VA 22807-0001
Office Telephone: (540) 568-2775/3335
Cell Phone: (540) 480-6129
E-mail: matatora@jmu.edu
Website: <http://cs.jmu.edu/people/mata-toledo.html>
Fax: (540) 568-2745

ACADEMIC RANK Professor of Computer Science and Affiliate Professor of Mathematics and Statistics at James Madison University.

EDUCATION

- Ph.D. in Computer Science, Kansas State University. Manhattan, Kansas. 1984.
- M.S. in Computer Science, Florida Institute of Technology. Melbourne, Florida. 1978.
- M.S. in Business Administration, Florida Institute of Technology. Melbourne, Florida. 1978.
- B.S. in Matemáticas y Física (Mathematics and Physics), Instituto Pedagógico de Caracas. Caracas, Venezuela. 1972.

PROFESSIONAL CERTIFICATIONS

- **Master Certificate in Business Intelligence** –Villanova University. July 2017
- **Oracle Master - Database Administrator** (Oracle 7.0). Oracle Education Services. 1996 (current up to Oracle 11g).
- **Oracle Master - Application Developer** (Forms 4.0). Oracle Education Services. 1995

AWARDS/SCHOLARSHIPS/RECOGNITIONS

- **2018 Transfer Advocate Award by the JMU Orientation Office** “For His Unparalleled and Selfless Contributions to the Success of Transfer Students.”
- **United States Fulbright Scholarship to Chile** (Adolfo Ibañez University). Spring 2018.
- **Outstanding Teaching Award** of the College of Integrated Science and Technology, James Madison University. 2015.
- **Distinguished Teaching Award.** Office of the President. James Madison University. 2015
- **2015 Diversity Enhancement Award.** Office of the President. James Madison University.

- **Make your Next Move Award** presented by the JMU Career and Academic Planning Department for “outstanding work helping student move forward with their career goals and plans.” First recipient of this annual award. Spring semester, 2012.
- **Featured article in “Profetas en Otras Tierras” of the Notitarde Newspaper in its 36th Anniversary Edition. Valencia, Agosto 9, 2012, página 57.** (www.notitarde.com)
- **All Together One Award** presented by the JMU Omicron Delta Kappa Leadership Honor Fraternity, 2009, in recognition for “building community, inspiring others, and working toward the common good of the University”. <http://www.alltogetherone.org/2009.html>
- **Participant-Faculty Mentor Award** in recognition of “outstanding achievement in the Microsoft Windows ChallengeE”, JMU 1st place winner, March 21, 2004, Redmond, Washington.
- <http://www.microsoft.com/presspass/press/2004/mar04/03-21windowschallengepr.mspx>.
- **Best Paper Award Certificate for “Performance Evaluation of Oracle and SQL Server Based on Cost-Cost Query Optimization Criteria”** Presented at the Annual Conference of the Association for Global Business. November 21-23, 2003 in Atlanta, Georgia.
- **Madison Scholar Award** in recognition for “outstanding efforts as a teacher, superlative accomplishments as a scholar and for academic achievement at the highest level.” First recipient of this annual award in the College of Integrated Sciences and Technology, James Madison University, 1996.
- **Fundación Gran Mariscal de Ayacucho Scholarship** through the Venezuelan government, 1976-1978.
- **Ganador del Primer Concurso por Oposición del área de Matemáticas (Winner of the First Competition by Opposition in the area of Mathematics)** del Colegio Universitario “Francisco de Miranda”, Caracas, Venezuela, 1974.

INDUSTRIAL AND CONSULTING EXPERIENCE

- **Editor-in-Chief** for the International Journal of Computer & Software Engineering (https://www.graphyonline.com/journal/editorial_board.php?journalid=IJCSE) 2016- Present
- **Computer Science Editor** for AccesScience (formerly the Yearbook of Science & Technology). McGraw-Hill. 1997-Present.
- **Senior System Analyst**, Math & Fin Soft, Inc. Harrisonburg, VA 2001- Present.
- **Computer Science Editor** for the Van Nonstrand’s Scientific Encyclopedia. Wiley Interscience. 2000-2002.
- **Database Consultant** for Access Network Solutions, Harrisonburg, 2010-2013.
- **Senior System Analyst**, Computer Dominion System, Inc. Harrisonburg, VA, 1998 - 2001.

- **Senior System Analyst**, Shenandoah Electronic Intelligence Technologies, Harrisonburg, VA, 1998 - 1999
- **Database Administrator**; project NITTS, United States Department of Justice, Immigration and Naturalization Service through SEI Technology, Inc., Harrisonburg, VA, 1991-1993.
- **Programming Consultant**, Real State III, Inc., Harrisonburg, VA, 1991-1993.
- **Programmer**, Collins Avionic (subsidiary of Rockwell International). Melbourne, FL, 1987 - 1988.
- **Programmer**, Rockwell International, Melbourne, FL, 1986-1987.
- **System Analyst**, Computer Information Science, Manhattan, KS, 1979-1983.
- **System Analyst**, Kansas Research Institute, Manhattan, KS, 1978-1979.

OTHER COURSES AND SPECIAL ACADEMIC OR TRAINING PROGRAMS

Workshop on the Foundations of Mathematics sponsored by the Center for Faculty Innovation. James Madison University. May 2015.

Canvas Jumpstart Workshops sponsored by Center for Instructional Technology, Fall 2014.

An Introduction to Mathematica in the Classroom. Wolfram Education Group. 2010.

Qualtrics Customized Training Center for Faculty Innovation. James Madison University. 2010.

Mixed Method Institute Center for Faculty Innovation. James Madison University. 2010.

Motivation Clinic STEM Center for Faculty Innovation. James Madison University. 2010.

Can Your Students POGIL? Center for Faculty Innovation. James Madison University. 2010.

Designing Group Work That Works Center for Faculty Innovation. James Madison University. 2009.

Data Analysis and Visualization Using Mathematica Mathematical Association of America. Skidmore College, Memphis, Tennessee, 2004.

How to write a Mathematics Textbook and Course Material Mathematical Association of America. Temple University, Philadelphia, Pennsylvania, 2004.

Discrete Mathematics Workshop Mathematical Association of America. Valparaiso University, Valparaiso, Indiana, June 2003.

Oracle Webserver: Develop Worldwide Web Applications, ORACLE Education Center. Bethesda, Maryland, 1996.

Data Warehousing with Oracle, ORACLE Education Center. Bethesda, Maryland, 1996.

Administer the Oracle 7 Database II, ORACLE Education Center. Tysons Corner, Virginia. 1996.

Develop Complex Data Models and Design Databases, ORACLE Education Center. Bethesda, Maryland, 1996.

Administer the Oracle 7 Database I, ORACLE Education Center. Tysons Corner, Virginia. 1996.

Develop Applications with ORACLE Forms II (Version 4.0), ORACLE Education Center. Bethesda, Maryland, 1995.

Tune ORACLE7 Applications, ORACLE Education Center. Bethesda, Maryland, 1995.

Develop Complex Queries: Advance SQL and SQL*PLUS, ORACLE Education Center. Bethesda, Maryland, 1995.

Develop Applications with ORACLE Forms I (Version 4.0), ORACLE Education Center. Tysons Corner, Virginia. 1995.

Introduction to ORACLE, ORACLE Education Center. Bethesda, Maryland, 1994.

ADA Seminar, Florida Institute of Technology. Melbourne, Florida, 1987.

Course in Learning Resources, Colegio Universitario “Francisco de Miranda”. Caracas, Venezuela, 1975.

Course in Human Resources Management, Escuela Nacional de Administración Pública (National School of Public Administration). Caracas, Venezuela, 1975.

Course in Operations Research, (Escuela Nacional de Administración Pública) National School of Public Administration. Caracas, Venezuela, 1975.

Course on Computation and Analysis, Instituto Pedagógico of Caracas. Caracas, Venezuela, 1975.

Enrichment Course in Mathematics, Instituto Pedagógico of Caracas. Caracas, Venezuela, 1975.

Postgraduate Course in Higher Education, Instituto Pedagógico de Maturín. Maturín, Venezuela, 1974.

Seminar in Group Dynamics, Ministerio de Educación (Ministry of Education) E.D.E.X. Caracas, Venezuela, 1973.

Teaching Mathematics, Universidad de Carabobo (Carabobo University). Postgraduate Studies. Valencia, Venezuela, 1973.

ACADEMIC EXPERIENCE

Fulbright Scholar at the Adolfo Ibañez University, Chile, Spring semester, 2018

Adjunct Professor of Data Science at DeSales University. 2017- Present

Adjunct Professor of Databases and Data Science Harvard University. 2015-2016.

Professor in Residence, Universidad de Salamanca, Spain, Summer Semester, 2011.

Professor of Computer Science, James Madison University. Harrisonburg, Virginia 2003-Present.

Associate Professor of Computer Science, James Madison University. Harrisonburg, Virginia. 1994-2003.

Professor in Residence, Universidad de Salamanca, Spain, Spring Semester, 1998.

Assistant Professor of Computer Science, James Madison University. Harrisonburg, Virginia. 1988-1994.

Assistant Professor of Computer Science, Florida Institute of Technology. Melbourne, Florida. 1983-1988.

Graduate Teaching Assistant, Kansas State University. Manhattan, Kansas. 1979-1983.

Instructor, U.S. Army Command and General Staff College. Fort Leavenworth, Kansas. 1979-1983.

Profesor a Dedicación Exclusiva y Coordinador del Departamento de Matemáticas del Colegio Universitario "Francisco de Miranda." Caracas, Venezuela. 1974-1976.

Profesor por horas de Matemáticas y Física los Colegios "Nuestra Señora de la Guadalupe", Liceo "Alcazar", Escuela Industrial Periférica de Coche con sede en Campo Rico, y de la Escuela de la Policía Técnica Judicial. Caracas, Venezuela (1973-1974)

Profesor de Matemáticas y Física, Liceo "José Manuel Nuñez Ponte". Caracas, Venezuela. 1969-1974

PROFESSIONAL/ACADEMIC AFFILIATIONS

Association for Computing Machinery (ACM).

Institute of Electrical and Electronics Engineers (IEEE).

American Society of Business and Behavioral Sciences (ASBBS).

Association for Global Business (AGB)

Listed in the 30th edition of American Men & Women of Science 30th edition of American Men & Women of Science, 2011.

PROFESSIONAL REFEREED PUBLICATIONS

"Internet of Things" with P. Gupta and A. Stanescu. Access Science. McGraw-Hill. 2018

"Machine Learning" with P. Gupta and A. Stanescu. Access Science. McGraw-Hill. 2016. 2018.

"The Fifth Generation of Evaluation: Evaluating for Quality" with G. Muñoz-Cuenca

STEAM/STEAM & Education Conference. Hawaii. 2017.

“Computer Storage Technology” with P. Gupta. Access Science. McGraw-Hill. 2016.

“Cryptoconcurrencies” with X. Wang and B. Tjaden. Access Science. McGraw-Hill. 2016.

<https://www.accessscience.com/content/cryptocurrencies/170500>.

“Cybercrime: In Disguise Crimes” with P. Gupta published in the Journal of Information Systems & Operations Management. Vol. 10. No.1 May 2016. Pages 1-10. Editura Universitară, București (Bucarest), Virgil Chichernea, Chief Editor.

“Beyond the Brain Drain: Flows of Migration in and out Venezuela” with A. Srinivasamohan, and B. Perez. Conference on Migration: A phenomenon of Human History from its Ancient Origins to the Present Global Situation. James Madison University, April 14-16, 2016.

“Open Source Software” with P. Gupta. AccessScience McGraw-Hill. 2015.

<https://www.accessscience.com/content/open-source-software/470200>

“Computer Virus” with P. Gupta. Accepted paper for publication AccessScience. McGraw- Hill. 2015.

“Big Data” with P. Gupta. AccessScience. McGraw- Hill. 2015.

“Cybercrime Violence” with P. Gupta. Accepted for presentation at the 2014 Conference on “Violence: Empowerment or Self-Destruction”. Department of Foreign Languages, Literatures, and Cultures. James Madison University, April 3-4, 2014

“Enriching Fuzzy Ontology for Querying Orthopedics Knowledge” with H. Vazquez, A. Aguilera, and L. Tineo. 29th International Conference on Computers and Their Applications CATA-2014. March 24-26, 2014, Las Vegas, NV.

“On an Extension of Fuzzy Aggregate Function” with A. Aguilera, M. Monger, and P. Gupta. Journal of Information Systems & Operations Management. Editura Universitară, București (Bucarest), Virgil Chichernea, Chief Editor. 2013.

“Green Cloud Architecture” with P. Gupta. McGraw-Hill Encyclopedia of Science & Technology of 2014.

“Determination of Significant Features to Precancerous Cervical Classification” with Ana Aguilera, M. Palma. 2013 AASRI Conference on Intelligent Systems and Control. April 17-18, Vancouver, Canada.

“Application of Data Mining Techniques on EMG Registers of Hemiplegic Patients” with A. Aguilera, A. Subero. 13th Industrial Conference on Data Mining ICDM 2013. July 16-21, 2013, New York/ USA

“Fuzzy Databases” with Ana Aguilera. Yearbook of the McGraw-Hill Encyclopedia of Science & Technology 2013, page 176-179.

“Temporal Data Management in NOSQL Databases” with M. Morgan and P. Gupta. Journal of Information Systems & Operations Management. Vol. 6. No. 2. Pages 7-16. Editura Universitară, București (Bucarest), Virgil Chichernea, Chief Editor. 2012.

“Web 2.0 Technologies with P. Gupta. Yearbook of Science & Technology 2012, McGraw-Hill, pages 310-312.

“Object-oriented Programming” with P. Gupta. McGraw-Hill Encyclopedia of Science & Technology. 2012. McGraw-Hill Encyclopedia of Science & Technology, 11th ed., vol. 12, pp. 269–272, 2012

“Natural Language Processing”, McGraw-Hill Encyclopedia of Science & Technology, Vol. 5, 11th Ed. 2012.

“Data Warehouse” with P. Gupta, McGraw-Hill Encyclopedia of Science & Technology, Vol. 5, 11th Ed. In press for 2012 publication.

“Database Development Life Cycle” with P. Gupta and M. Monger. Journal of Information Systems & Operations Management. Vol. 5. No. 1. Pages 7-16. Editura Universitară, București (Bucarest), Virgil Chichernea, Chief Editor. 2011.

“Utilizing ASP.NET MVC in web development courses” with M. Monger and P. Gupta. Consortium of computing sciences in colleges, 2011.

“Utilizing the Microsoft Entity Framework in a Database Course” with M. Monger. Presented at the 26th Eastern Conference of the Consortium for Computing Sciences in Colleges (CCSC), October 15 -16, Juniata College, Huntingdon, Pennsylvania, 2010.

“Implementing a Modern Temporal Management System” with M. Monger. Journal of Information Systems & Operations Management. Vol 4. No. 1. Pages 7- 11. Editura Universitară, București (Bucarest). Virgil Chichernea, Chief Editor. May 2010.

“Green Data Center: How Green Can We Perform?” with P. Gupta. Presented at the 17th Annual Conference of the American Society of Business and Behavioral Sciences. Las Vegas, Nevada. February 18-21, 2010. Vol. 17, pages 566-571.

“Green Data Center: How green can we perform?” Selected article for publication in the AABRI: Journal of Technology Research. July, 2010.

“Green Computing” with Y. Choi. McGraw- Hill Year Book of Science and Technology, 2010. Pages 167-169.

“Better Business Reporting with Temporal Data Management” with M. Monger. Presented at the 15th Annual Conference of the American Society of Business and Behavioral Sciences. Las Vegas, Nevada. February 21-24, 2008.

“Does Spanglish Have a Future”. Presented at the International Academy of Linguistics, Behavioral and Social Sciences, Washington D.C., November 15-18, 2007.

“Implementing a Temporal Data Management System Within Oracle” with M. Monger. Presented at CCSCE 2007, the Eastern Conference of the Consortium for Computing Sciences in Colleges, at the St. Joseph's College in Patchogue, New York, October 12 and 13, 2007.

“Spanglish: An Involution of the Spanish Language”. Presented at the Conference on Immigration, Assimilation, and Cultural Identity. James Madison University. March 29-30, 2007.

“An Automated Oracle-based PL/SQL Temporal Data Management System to Improve Business Reporting Using Temporal Data Management” with M. Monger. Conference of the Association for Global Business. November 14-19, 2006 in New Port Beach, California.

“Language Theory” Encyclopedia of Science & Technology, 10th Edition. Volume 9, pages 653-655. McGraw-Hill, 2007.

“Enterprise Service BUS: An Evolution of Lessons Learnt from the Past: Have We Really Learned Them?” with P. Gupta. 13th Annual Conference of ASBBS. Las Vegas February 23 to 26, 2006.

“Blog Noise: An Internet Malady” with C. Lunny and P. Gupta. Presented at 12th Annual Conference of ASBBS. Las Vegas, February 24 to 27, 2005.

“Metadata” Encyclopedia of Science & Technology, 10th Edition. Volume 10, page 713. McGraw-Hill, 2007.

“Automata Theory” Encyclopedia of Science & Technology, 10th Edition. Volume 2, pages 436-438. McGraw-Hill, 2007.

“Database Management Systems” Encyclopedia of Science & Technology, 10th Edition. Volume 5, pages 261-267. McGraw-Hill, 2007.

“Performance Evaluation of Oracle and SQL Server Based on Cost-Cost Query Optimization Criteria” with Rohit Kelkar. Presented at the Annual Conference of the Association for Global Business. November 21-23, 2003 in Atlanta, Georgia. Printed in the Journal of Current Research in Global Business. Vol. 5, No. 8, Pages 113-119. Fall 2003. Best Paper Award Certificate.

“Data Mining” McGraw-Hill Yearbook of Science & Technology 2003. Pages 74-76. McGraw-Hill.

“Addressing the Managerial Information Security Concerns of CPAs” with Manuel L. Jose. Presented at Association for Global Business. Vol. 13. Pages 81-86. November 21-24, 2002. Las Vegas, Nevada.

“A Model Course for Teaching Database Administration with Personal Oracle 8i” with Carlos A. Reyes-Garcia. Proceedings of the Seventh Annual Eastern Small College Computing Conference/CCSC Eastern Conference. October 26-27, 2001. Shepherd College. West Virginia. Volume 17. No. 3. February 2002. Pages 119-124.

“Petri Nets” McGraw-Hill Yearbook of Science & Technology 2002. Pages 226-268. McGraw-Hill.

“Numbering Systems” Encyclopedia of Science & Technology, 9th Edition. Pages, 229-232. McGraw-Hill. 2002.

“Numerical Representation (Computers)” Encyclopedia of Science & Technology, 9th Edition. Pages, 237-238. McGraw-Hill. 2002.

“Translators” Van Nostrand’s Scientific Encyclopedia. Ninth Edition. Pages 3516-3517. David Considine, Editor. John Wiley. 2002. Pages 3516-3517.

“Bit” Encyclopedia of Science & Technology, 9th Edition. Pages, 139-140. McGraw-Hill. 2002.

“Database Management Systems” Van Nostrand's Scientific Encyclopedia. Ninth Edition. David Considine Editor. John Wiley. 2001. Pages 1027-1029.

“Algorithms” Van Nostrand's Scientific Encyclopedia. Ninth Edition. David Considine Editor. John Wiley. 2001. Pages 96-97.

“Strategies for Determining a Design View: A Preamble to DBMS Modeling” with E. Adams and M. Norton. Presented to the 16th Annual Eastern Small College Computing Conference. October 27-28, 2000. Scranton, Pennsylvania. Pages 29-39.

“Enabling Global E-Commerce: A Technology Perspective” with M. Eltoweissy, A. Eskandarian, C. Fox, M. Heydari and J. McDermott. Published in the Proceedings at the Association for Global Business. Pages 124-133. Las Vegas, Nevada. November 18-21, 1999.

“Vendor-based Information Technology Certificates and Computer Science Education: Toward Integrated Skills Computer Science Programs” with M. Willis, A. Waada, Heydari, and M. Eltoweissy. 15th Annual Eastern Small Colleges Computer Conference at St. Bonaventure University. Olean, New York. October 15-16, 1999. Published in the Conference Proceedings, pages 82-86.

“An Open Architecture for Interoperability Management in Distributed Autonomous Object Environment” with A. Waada, S. Shen, and M. Eltoweissy. 5th International conference on Information Systems analysis and Synthesis (ISAS'99). Orlando, FL. July 31-August 4, 1999.

“The Virtual Room: An implementation Using the Webboard” with M. Carrier. Presented at the Sixth Annual Conference of the American Society of Business and Behavioral Sciences. Las Vegas, Nevada. February 18-22, 1999. Published in the CD of the Conference Proceedings.

“Clash of Law and Technology in International Electronic Commerce: The Law Needed Today Is Due in 2013” with J. Cordani. Presented at the National Conference of the Association for Global Business. New Orleans, LA. November 19-21, 1998.

“Ethics in Cyberspace: Dilemmas in Communications Through the Information Super Highway” with J. Cordani. Presented at the International Seminar on Values and Ethics in Business. January 4-7, Ahmedabad. India. 1998.

“Software Metrics” Published in McGraw-Hill Yearbook of Science and Technology. Part II of Software Engineering article. Pages 334-335. McGraw.-Hill. 1999.

“Pneumatic Servo Control System Optimization Based on Genetic Algorithms” with Z. Wang. Presented at the Sixth International Conference on Human Aspects of Advance Manufacturing: Agility & Hybrid Automation. Hong Kong University of Science and Technology July 8-11, Hong Kong, 1998. P.R. China.

“El Algoritmo del Caos, los Fractales y su Aplicación al Reconocimiento de Autores” presented at the III Congreso de Lingüística General. Salamanca, Spain. March, 23-25, 1998.

“Experiences in Teaching a Remote Distance Program Via the INTERNET” with J. Cordani. Published in the Proceedings of the 16th Conference on Interactive Instruction and Distance Learning Systems of the Society of Applied Learning Technology (SALT). Pages DL-Fri(9:15)2-7. Kissimmee, Florida, February 18-20, 1998. Reprinted in the Journal of Instruction Delivery Systems. Vol. 12, No. 2. 8-10. Spring 1998.

“Communication and Information Security Challenges to the Business Community of the 21st Century” with J. Cordani and K. Geide. Presented at the International Conference on Business and Management. Ahmedabad, India. January 4-7, 1998.

“University Jewels and Robbers: What are They?” with J. Cordani and K. Geide. 25th annual Conference of the ACM Conference of the Special Interest Group of University and College Computing Services (SIGUCCS). Monterrey, California. November 9-12, 1997. Proceedings of the ACM SIGUCCS 1997. User Services Conference XXV. Pages 57 – 62.

“Industrial Espionage Through the INTERNET: A New Frontier of Electronic Warfare for the U.S.A.” with J. Cordani and K. Geide. National Conference of the Association for Global Business. Washington, D.C. November 20-23, 1997. Proceedings of the Conf. Pages 322-327.

“An Internet-Based Masters Program in Information Security” with J. Cordani, J. A. Harris, and C. W. Reynolds. First ACM Workshop on Education in Computer Security. Monterrey, California. January 29-31, 1997.

“Using Factor Analysis for Evaluating Collateralized Mortgage Obligations” with A. Nazemi. 4th Annual Conference of the American Society of Business and Behavioral Sciences. Las Vegas, Nevada. February 2-6, 1997.

“Strategies for Determining a Design View: A Preamble to DBMS Modeling” with T. Davis. Twenty-Four Annual Meetings of the SouthWestern Federation of Administrative Disciplines. Indianapolis, Indiana, April 24-26, 1997.

“Issues and Perspectives on Knowledge-Based Systems as Workflow Enablers” with J. Pomykalski. International Conference on Operations and Quantitative Management. Jaipur, India. January 5-8, 1997.

“Integrity Control in Databases Using a Workflow Management System” with M. Willis. International Conference on Operations and Quantitative Management. Jaipur, India. January 5-8, 1997.

“Text Authorship Determination Using the Chaos Game Algorithm” with M. Willis. 1996 Meeting of the Society for Literature and Science. Abstract published in Conference Abstract Book, page 80. Georgia Institute of Technology. Atlanta, Georgia. October 10-13, 1996.

“On a Simple Motion Planning System for Robots” with A. Tokuta and G. Egekwu. IX International Symposium of Artificial Intelligence. Monterrey, Mexico. October 1996.

“Visualization of Pseudo-Random Sequences Using the Chaos Game Algorithm” with M. Willis. Journal of Systems and Software. October 1997. Pages 3 – 6.

“A Decision Support System for Classifying Complex Mortgages Securities” with A. Nazemi. 3rd. Annual Conference of the American Society of Business and Behavioral Sciences. Las Vegas, Nevada. February 11-15, 1996. Published in Proceedings of the Third Annual Meeting of the American Society of Business and Behavioral Sciences. W. Mondal and C. Sims. Editors. Vol. 6. Pages 99-106.

“Aspectos y Consideraciones del Reconocimiento Automático del Habla y su Aplicación al Idioma Español” (Aspects and Considerations of Automatic Speech Recognition and its Application to the Spanish Language) with C. Reyes-García. 68th Annual Meeting of the National Association for Research in Science Teaching (NARST). Abstract published in Final Program and Abstracts: Informal Learning in Science. Pages 160-161. San Francisco, California, April 22-25, 1995.

“Effectiveness of Job Advertisement for Attracting Computer Professionals” with N. Khamchai, R.

Domangue and I. Coles. 2nd. Annual Conference of the American Society of Business and Behavioral Sciences. Las Vegas, Nevada. January 2-5, 1995. Published in Proceedings of the 2nd. Conference of the ASBBS, William E. Winston. Editor. Vol. 1. No. 2. Pages 30-38. 1995.

“Program Debugging and Program Understanding: Two Experiments Using the Programming Language Pascal” with Jean E. Rissler. First Annual Conference of the American Society of Business and Behavioral Sciences. Las Vegas, Nevada. September 18-20, 1994. Published in the American Society of Business and Behavioral Sciences Perspectives Journal. Proceedings of the 1994 Las Vegas Conference, William E. Winston. Editor. Vol. 1. No. 2. Pages 85-92.

“Expert System Evaluation: A Review and Integrative Model” with J. Leibowitz. CC-AI The Journal for the Integrated Study of Artificial Intelligence Cognitive Science and Applied Epistemology. Issue on Evaluation of Knowledge Based Systems. Babbage Institute for Knowledge and Information Technology. Ghent, Belgium. N. Juristo, Editor. Vol. 11. No. 3. Pages 297-321. 1994.

“Guía Académica General para la Implementación Inicial de Carreras Computacionales en America Latina” (General Guide for the Initial Implementation of Computer Science Undergraduate Programs in Latin America) with C. Reyes-García and R. Sánchez-Guerrero. Presented at the 67th Annual Meeting of National Association for Research in Science Teaching (NARST). Abstract published in Abstracts of Presented Papers. (Izak, D et al. Editors). Page 51. Anaheim, California, March 26-29, 1994.

“Foreign Language Acquisition in a Multimedia Environment” with A. Stoltzfus. Presented paper. 12th Conference on Interactive Instruction of the Society of Applied Learning Technology (SALT). Pages 86-88. Orlando, Florida, February 23-25, 1994. Reprinted in the Journal of Interactive Instruction Development. Vol 7. No. 1. Pages 13-16. 1994.

“Building a Language Acquisition Tool in a Multimedia Environment Using the Macintosh” with G. Keim and A. Stoltzfus. MacWorld (Spain), September. 1993.

“A Factor Analysis of Software Complexity Metrics” with D. Gustafson. Journal of Systems and Software. Vol. 17. Pages 267-273. March 1992. Elsevier.

“Using Program Dependence Graphs for Information Flow Control” with C. Hsieh and E. Unger. Journal of Systems and Software. Vol. 17. Pages 227-232. March 1992. Elsevier.

“A Critique of Validation/Verification Techniques for Software Development Measures” with D. Gustafson, R. Courtney and N. Temsemani. Presented paper. BCS-FACS Workshop on Formal Aspects of Measurement. Pages 147-156. South Bank University. London, May 5, 1991. Springer-Verlag.

“Integrating Semantic Nets and the Relational Data Model for Temporal Knowledge Bases” with F. Anger, R. Morris and R. Rodríguez. Advances in Artificial Intelligence Research, Mark B. Fishman, Editor. Volume 1. Pages 49-63. 1990. JAI Publishers.

“Decentralized Mutual Exclusion in the Presence of Link Failures” with Samuel C. Hsieh. Presented paper. Published in Computing Trends in the 1990's. Seventeenth Annual ACM Computer Science Conference. Pages 195-203. Louisville, KY. February 21-23, 1989. ACM Press.

"**A Temporal Relational Calculus**" with F. Anger, R. Morris and R. Rodríguez. 2nd Australian Joint AI Conference. Pages 177-185. University of Adelaide, Australia. November 15-18, 1988. Springer-Verlag.

"**Some Experimental Results of Complexity Metrics Using Factor Analysis**" with D. Gustafson. Proceedings of the Software Design Metrics Workshop. Pages A55-58. Sponsored by SPC and U.S. Air Force Rome Air Development Center Griffiss AFB (New York). March 14-16, 1988, Melbourne, Florida.

"**A Relational Knowledge-Base with Temporal Reasoning**" with F. Anger, R. Morris and R. Rodríguez. Proceedings of the First Symposium of the Florida Artificial Intelligence Research Symposium. Pages 147-151. March 4-6, 1988, Orlando, Florida.

"**Factor Analysis of Complexity Measures.**" Ph.D. Dissertation. Kansas State University. 1984.

"**Another Look at Motivating Data Processing Professionals**" with E. Unger. Special Interest Group of University and College Computing Services. Vol. 13. No. 3. Pages 7-11. ACM. Fall 1983.

BOOKS PUBLISHED

R with Applications to Data Science with P. Gupta and A. Stanescu (in preparation)

Logic for Computer Sciences with D. Flage Oxford Press (in preparation). 2018.

Fundamentals of SQL with P. K. Cushman. Schaum's Outline Series. McGraw-Hill. July 2000.

Fundamentals of Relational Databases with P. K. Cushman. Schaum's Outline Series. McGraw-Hill. September 2000.

Introduction to Computer Sciences with examples in C, C++, Java and Visual Basic. With P. K. Cushman. Schaum's Outline Series. McGraw-Hill, 1999.

Basic Mathematics with Applications to Science and Technology. 2nd Ed. with H. Kruglak and J.T. Moore. Schaum's Outline Series. McGraw-Hill, 1998.

Problemario de Matemáticas para el Cuarto Año del Ciclo Básico Diversificado with F. U. Valles. Publicaciones J.M.N.P. Caracas, Venezuela. 1972.

PRESENTATIONS/INVITED LECTURES

“Data Science” Present and Future”. Universidad Técnica del Uruguay. Duranzo. May 21, 2018.

“Data Science and Its Applications” Fulbright Commission in Santiago de Chile. March 7, 2018.

“Lo que me gustaría haber aprendido en bachillerato y que nunca me enseñaron” VII Congreso Nacional y 1^{er} Congreso Internacional de Investigación. Universidad de Carabobo, Valencia (Venezuela), Diciembre, 2010.

“Using Mathematical Induction to Prove Programs Correct.” Shenandoah University. Ph.D. Technology Program. Summer 2003.

“Clash of Law and Technology in International Electronic Commerce: The Law Needed Today is Due In 2013” Presented at the National Conference of the Association for Global Business. New Orleans, November 19-21, 1998

“El Algoritmo del Caos, los Fractal y su aplicacion al Reconocimeiento de Autores” invited lecture presented at the III Congreso de Lingüística General. Universidad de Salamanca, Spain. March, 23-25, 1998.

“Improving Reliability of Computer Software: A Case for Complexity Metrics” Madison Scholar Lecture. Fall semester, 1996.

“A Comparison of Three Methods of Proving Programs.” Spring meeting of the Mathematical Association of America (Maryland/DC/Virginia Section), Frostburg State University, April 28, 1990.

“Time Intervals in Temporal Databases.” Colloquium of Mathematics. James Madison University. Spring 1989.

“Decentralized Mutual Exclusion in the Presence of Link Failures.” Seventeenth ACM Annual Computer Science Conference. Louisville, KY, February 21-23, 1989.

Coloquio de Matemáticas en “Factor Analysis of Complexity Measures” Universidad de Puerto Rico recinto de Rio Piedras. May 17, 1983.

MASTER THESES and UNDERGRADUATE HONOR THESIS

Andrew, Latour, **“Scheduler Web Application”**, James Madison University, Adult Degree Program, 2018.

Grau, Jaime, **“World Sentiments Choropleth”**, Universidad Adolfo Ibañez, Chile. 2018.

Zugniña, Cristobal, **“A Game Implementation with Arduino”**, Universidad Adolfo Ibañez, Chile. 2018.

Harris, Melissa, **“Influential Women in Computer Science”**, James Madison University, Adult Degree Program, 2018.

David Earl Jenkins. Thesis: “**Artificial Intelligence and Human Decision Process**”, James Madison University, Adult Degree Program, 2018.

DeCampli, Craig Assis “**Enhancing the Learning Experience – Use of Video Game Technology for Teaching Japanese Language**” James Madison University, Spring 2017. (Undergraduate)

Becker, Lukas, “**Leveraging Knowledge Graph for Improved Video Recommendation**” James Madison University. 2017

Munch, Kevin “**Development of Voice User Interfaces and Their Impact to the User Experience of Mobile Application**” .2017

Lambright, Russell, “**An Analysis of New and Emerging Operating System Paradigms**” James Madison University. 2007.

Monger, Morgan, “**Temporal Data Management Using Reference Intervals in a Relational Database**” James Madison University. 2006.

Kelkar, Rohit, “**Performance Evaluation of Oracle and SQL Server Based on Cost-Based Query Optimization Criteria**” James Madison University. 2002.

Reginald Smith, “**A Process Controlled Cache**” James Madison University. 1996.

Robert Martin, “**A Study and C++ Implementation of ART1 and ART2 Neural Nets**” James Madison University. 1994.

Leigh Bauserman, “**An Approach to Computer Animation Using Object Oriented Programming**” James Madison University. 1991.

Jeffrey Sponaugle, “**A HyperCard/Audio Compact Disk Multimedia Fusion**” James Madison University. 1991.

Dimitros Loumakis, “**PROLBASE: A Fuzzy Relational Database Management System Using PROLOG.**” Florida Institute of Technology. 1989.

Mihail Alexopoulos, “**MQS: A Prototype Relational Multidatabase Management System.**” Florida Institute of Technology. 1988.

Michael Lindsey, “**UNIBASE: A Relational Database Management System for the UNIX Operating System.**” Florida Institute of Technology. 1988.

Naim Temsemani, “**Automating and Refining Software Measurements.**” Florida Institute of Technology. 1988.

NATIONAL SERVICE/ INTERNATIONAL SERVICE

Editor-in-Chief for the International Journal of Computer & Software Engineering
(https://www.graphyonline.com/journal/editorial_board.php?journalid=IJCSE) 2016- Present

Editorial Board Member of the Journal of Information Systems & Operations Management. Editura Universitară, București (Bucarest). 2014- Present.

Editorial Board Member- International Journal of Computer and Software Engineering. Graphy Publications. Bangalore, India. 2016 – Present.

Reviewer of CCSC, Eastern Region. 2005 – Present.

Computer science reviewer in the area of computer science for the following American publishing companies: Addison-Wesley, West, Macmillan, McGraw-Hill and Irwin. 1995- Present

Chair of the Program and International Committee. National Association for Research in Science Teaching (NARST). 1994-1996.

Computer Science Editor in the area of Information Systems for the American Society of Business and Behavioral Sciences. 1994 - 1995.

Book Reviews

Discrete Mathematics: A New Approach. G. Bauer. Chapman & Hall/CRC, 2019.

Intro to Python for the Computer and Data Sciences, Deitel & Deitel, 2019.

College Algebra. Julie Miller. McGraw-Hill. 2015

Calculus: Early Transcendental. Jon Rogawski. W.H. Freeman. 2007

Linux for Programmers and Users. Graham Glass and King Ables. Prentice-Hall. 2004

Fundamentals of Database Systems. R Elmasri and S. Navathe. Addison-Wesley. 2000.

An Introduction to Database Systems. Seventh Edition. C.J. Date. Addison-Wesley. 1999

An Introduction to Compiler Construction, W. M. Waite and L. R. Carter. Harper Collins, 1996.

Discrete Mathematics, S. Lipschutz. Schaum's Outline Series. 1996.

Mathematical Handbook. M, Spiegel. Schaum's Outline Series. 1995.

Basic Mathematics. H, Kruglak, J.T. More. Schaum's Outline Series. 1994.

Database Theory. J. L. Johnson. Addison-Wesley. 1993.

Programming for Artificial Intelligence. Third Edition. I. Bratko. Addison-Wesley. 1993.

Compiler Construction. 2nd Ed. W. Barret, R. Bates, D. Gustafson and J. Couch. Macmillan Publishing

Company. 1992.

The Database Book. R. Faley and G. Steinberg. Addison-Wesley. 1992.

Information System Literacy and Software Productivity Tools with Dbase IV. Second Edition. H. Bigdoli. Macmillan Publishing Company. 1992.

Paradox 3.5/4.0. H. Bigdoli. Macmillan Publishing Company. 1992.

The Science of Database Management. P. Helman. Irwin. 1992.

The Science of Dbase Management. P. Helman. Addison-Wesley. 1992.

SQL and Applications Programming with DBIII in Three Days. I. Kogan. Addison-Wesley. 1992.

Introduction to D-Base Systems with Cost/Performance Emphasis. O'Neil and Simovici Addison-Wesley. 1991.

An Introduction to Database Systems. Fifth Edition. C.J. Date. Addison-Wesley. 1990.

File Processing with BASIC. J. DuPont. West Publishing, 1990.

Introduction to Databases. B. Garfalo. Addison-Wesley. 1990.

CONFERENCES AND TECHNICAL REFEREED PAPERS

Data Science. Fulbright Commission, Santiago de Chile, March 7, 2018.

Data Science and its Applications, UTEC at Durazno, May 17, 2018. Uruguay.

Reviewer for CoNCISa 2015. 3rd National Conference of Computing, Informatics, and Systems. (SVC Venezuelan Computational Society). 2012 – Present

Session Moderator (Compilers) for the Consortium for Computing Sciences in Colleges for the Twenty-Second Annual CCSC Eastern Conference, October 27-28, 2006 at the University of Mary Washington, Fredericksburg, Virginia.

Reviewer and Editor of the Information Decision Sciences track of the Annual Conference of the American Society of Business and Behavioral Sciences. 1994 - Present.

ACM Reviewer for the Database Area. 1996 - Present

Reviewer for the Third Annual Symposium of the International Association of Knowledge Engineers, Washington, D.C., November 16-19, 1992.

Reviewer for the Conference on Mathematical Fundamentals of Databases and Knowledge Base Systems. Goehren, Germany. May 16-19, 1991.

Participant at the ACM Symposium on Personal and Small Computers. Arlington, VA. March 28-30, 1990.

Participant at the ACM and IEEE Symposium of Applied Computing. University of Arkansas, Fayetteville. April 5-6, 1990.

Reviewer for the Meeting of the Mathematical Association of America (Maryland/DC/Virginia Section), Frostburg State University, April 28, 1990.

Reviewer for the Third Symposium of the Florida Artificial Intelligence Research Symposium. Atlantic University, Boca Raton, May 20-23, 1990.

Referee for the IEEE Special Issue on Software Development Metrics. January, 1989.

Reviewer for the Seventeenth ACM Computer Science Conference. Louisville, KY, February 21-23, 1989.

Reviewer for the First Symposium of the Florida Artificial Intelligence Research Symposium. Orlando, Florida, March 4-6, 1988.

UNIVERSITY EXTERNAL REVIEW COMMITTEES

Reviewer for the promotion to Professor of José T. Cadenas. Universidad Simón Bolívar. Caracas, Venezuela, 2015.

Reviewer for the promotion to Professor of Marlene Goncalves. Universidad Simón Bolívar. Caracas, Venezuela. 2012.

Reviewer for the promotion and tenure of Professor Mohammed Ketel, University of Baltimore, Maryland, 2010.

Reviewer for the promotion to Professor of Dr. Samuel C. Hsieh, Ball State University, Muncie, Indiana, 2006.

Reviewer for the promotion to Associate Professor of Dr. Michael O'Neal at Louisiana Tech University, 1992.

JMU UNIVERSITY COMMITTEES OR COMMISSIONS

CISAT International Advisory Committee 2011 - Present

Dean Advisory Committee 2011 – 2012

CISAT Diversity Council 2010 – 2011

University Council. 2000- 2002.

Faculty Development Committee. 1998 – 2005.

Task Force on Science and Mathematics. Organizational Issues. 1994- 2004

Search Committee for the position of JMU Database Analyst in System Developments. 1994

Faculty Senate Committee on Curriculum and Instruction. 1993-94.

International Programs Development Committee. 1993-Present.

Representative of CISAT to the ADA Subcommittee on Academic Affairs. 1992-2000

Commission on Graduate Studies. 1989-1994.

Academic Computing Advisory Committee. 1992-1993.

Administrative Computing Advisory Committee. 1992-1998.

Representative of the Computer Science Department to the Faculty Senate. 1992-1995

Chair of the Faculty Salary Survey of the Faculty Concerns Committee. 1989-1993.

Representative of the Mathematics and Computer Science Department to the Faculty Senate.
1989-1992.

Commission of Graduate Coordinators. 1988-1991.

Applied Sciences Committee. 1988-1990.

JMU COMPUTER SCIENCE DEPARTMENTAL COMMITTEES OR SERVICE

Coordinator of the Computer Science Speaker Series. 2011 – Present.

PAC Committee Chair for the year 2011 – 2011

Member of the Faculty Search Committee for the year 2011.

Member of the Faculty Search Committee for the year 2010.

Member of the CS PAC 2009 – Present.

Chair of PAC for the year 2005-2007.

Chair of the Academic Program Review Committee, 2004.

Representative of the Computer Science Department to the Faculty Development Committee. 1995-2003

Representative of the Computer Science Department to the International Committee. 1995-2002; 2010 – Present.

Member of the Personnel Advisory Committee. 1992-2007.

Computer Science Curriculum Committee. 1988-1991.

Computer Science Faculty Search Committee of the Department of Mathematics and Computer Science for the years 1989, 1990 and 1995.

Graduate Computer Science Admission Committee. 1988-2003.

Graduate Coordinator of Computer Science. 1988-1991.

MISCELLANEOUS UNIVERSITY SERVICE AT JMU

Chapter Director of the Epsilon-Mu chapter of the SIGMA PI Fraternity, 1994-1996.

Chapter Director of the Chi-Alpha Chapter, 1994-1996.

Facilitator of the Institutional Agreement between JMU and the Universidad Simon Bolivar in Caracas, Venezuela, 2013.

Facilitator of the Institutional Agreement between JMU and the Politecnical Instituto of Monterrey, Mexico, 1996.

Facilitator of the Institutional Agreement between JMU and the Universidad de Buenos Aires, 1996.

Liaison between the CS Department and the Study Group residing at JMU, 2008- present.

Faculty Adviser of the Lambda Theta Phi Latin Fraternity, 2000- 2001.

STATE SERVICE

Judge of Virginia Academy of Science, 2008- Present.

Member of the Local Arrangement Committee for the 72nd Annual Meeting of the Virginia Academy of Science, 1993-94.

Computer Science Editor of the Virginia Academy of Science, 1990-1992.

PROFESSIONAL SERVICES TO THE COMMUNITY

Spanish translator with the Harrisonburg Police Department. 1989-Present.

COURSES TAUGHT OR DIRECTED IN CS AT JMU (* graduate courses)

CS 100 (Introduction to BASIC)

Math 155 (College Algebra)

CS 227- 328 (Discrete Mathematics)

Math 205 - 206 (Introductory Calculus I & II)

Math 248 Computers and Numerical Algorithms

CS 280 (Projects in Computer Sciences)

CS 350 (Computer Organization and Assembly Language)

CS 442 (Logic for Computer Sciences)

CS 355 (Programming Languages)

CS 444 (Artificial Intelligence)

CS 454 (Internships in Computer Science)

CS 456 (Implementation of Programming Languages)

CS 474 (Database Design and Applications)

CS 475 (Distributed Database Management)

CS 480 (Selected Topics -- PROLOG Applications)

CS 480 (Selected Topics -- Natural Language Processing)

CS 510 (Accelerated Fundamentals of Computer Programming) *

CS 511 (Accelerated Fundamentals of Computer Systems) *

CS 552 (Applied Complexity Theory)*

CS 574 (Database Systems I) *

CS 585 (Selected Topics -- Assembly, Linkers and Loaders) *

CS 585 (Selected Topics -- Artificial Intelligence using PROLOG) *

CS 585 (Selected Topics -- Compiler Design) *

CS 634 (Natural Language Processing) *

CS 665 (Software Engineering I) *

CS 666 (Software Engineering II) *

CS 674 (Database Systems II) *

CS 676 (Distributed Databases) *

CS 680 (Reading and Research) *

CS 685 (Special Topics -- Natural Language Processing) *

CS 699 (Thesis Continuance) *

CS 700 (Thesis) *

PERSONAL INFORMATION

U.S. Citizen.

Married: (Anahis C. Mata)

Children: (Harold, Lys, and Hayley)

Hobbies: (Running, reading)

Languages: English, Spanish, Italian

Religion: Christian (Member of the New Beginnings Church, Harrisonburg, VA)