

Curriculum Vitae
Antonio Sánchez Aguilar

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Married to Dr. Mary Alcocer,
two sons Alonso (37) and Felipe (35)

Education

1977 - 1983 D. Sc. in Computer Science with Minors in
Operations Research and
Management Science, 3.8/4.0 average.
The George Washington University
Washington, D.C.

1975 - 1977 M. Sc. in Computer Science with
"Exceptional Performance" in the final
exam, 3.8/4.0 average.
The George Washington University
Washington, D.C.

1970 - 1975 B. Sc. in Chemical Engineering
with "Honors".
Universidad Iberoamericana
México City, México

Academic Activities

June 2018 - Taught a course on "Data Mining" at [Telecom SudParis](#)
Evry France

- June 2014 -** Taught a course on “Data Mining” at [Telecom SudParis](#)
Evry France
- 2007 -** Associate Professor of Computer Science
Texas Christian University
Fort Worth, Texas
- 2005 -2006** Distinguished Lecturer of Computer Science
Texas Christian University
Fort Worth, Texas
- 2002 - 2008** President of the Board of **LANIA**
(*National Laboratory for Advanced Informatics*)
- 1981 - 2004** Full Professor of Computer Science
and Information Technology
Universidad de las Américas-Puebla
Puebla, México.
- 2002- 2003** Distinguished Scholar in Residence
Texas Christian University
Fort Worth, Texas
- 1989- 2001** Vice President for Academic Support
Universidad de las Américas-Puebla
Puebla, México.
- Summer 1988** Visiting Scholar in Cybernetics
The George Washington University
Washington, D.C.
- 1985 - 1988** Vice President for Academic Affairs
Universidad de las Américas-Puebla
Puebla, México.
- 1984 - 1985** Dean, School of Engineering
Universidad de las Américas-Puebla
Puebla, México.
- 1982 - 1984** Chairman, Department of Electrical
Engineering and Computer Sciences,
Universidad de las Américas-Puebla
Puebla, México.
- Summer 1983** Associate Professorial Lecturer
The George Washington University
Washington, D.C.

Curriculum Vitae

Antonio Sánchez Aguilar

- 1978 - 1981** Part time Professor in Computer Science:
- Universidad de las Américas-Puebla
- Universidad Iberoamericana, México
- Ciess - IMSS, México, D.F.
- 1977 - 1979** Graduate Teaching Assistant
The George Washington University
Washington, D.C.
- 1973 - 1974** Math Instructor at High School Level
Colegio Oxford, México, D.F.

Consulting Activities

- 1989-1994** Consulting Services Manager of
UDLA Consultores,
Cholula, Puebla, México
- 1979 - 1981** Consultant and Project Manager at
Consultores **ITSA**, a national consulting
firm in the fields of Computer and
Telecommunications México, D.F.
- 1978** -Free-Lance Consultant in Operations
Research at the Ministry of Agriculture of
the Mexican Government.
-Assistant at the **IMIT**,
Mexican Institute of Technological
Research México, D.F.

Areas of Interest

- Java development for Interoperability
- BigData, Data Mining and Visualization
- Adaptive Learning & Artificial Intelligence

Academic Societies

- President of the **SMCC**
(Mexican Society of Computer Sciences)
(2001-2003)
- Member of CS Board **UT-El Paso** (2002-2004)
- Treasurer of the **SMCC**
(Mexican Society of Computer Sciences)
(1995-2001)

- President of the **SMIA**
(Mexican Society of Artificial Intelligence)
(1991-1993)
- Founding member of the **SMIA**
(Mexican Society of Artificial Intelligence)

Distinctions

Upsilon Pi Epsilon Member (2003)
ComputerWorld Honors Laureate as part of the UDLA project (2001)
Phi Beta Delta Honorary Member (1993)
Member of the organizing committees of Iberoamerican congresses of AI (Barcelona, Morelia, Havana, Caracas, Cholula, Lisboa)
Mexico's CONACYT Scholarship for the Doctor in Science studies (1977-1979)
OAS Scholarship for the Master in Science studies (1975-1977)

Publications

Sanchez, A. (2022). Knowledge: Making a quality Choice. Presented at 2022 International Conference on Computational Science and Computational Intelligence (CSCI2022 Las Vegas, Nevada CSCI 2022 IEEE Catalog Number: CFP2271X-USB ISBN: 979-8-3503-2028-2

Sanchez, A. Mei Bo (2019). July 2019. To GUI or Not to GUI: On How We Teach Introduction to Programming Presented at Int'l Conf. on Frontiers in Education: (FECS19). Las Vegas, Nevada

Sanchez, A. November 2016. Big Data: Uses of Data Mining and Visualization (“Big Data: uso de la visualización y la minería de datos”) in *Perspectivas y Enfoques de la Convergencia*, F. Stezano Editor, Red Temática, Conacyt (Mexican NSF) pp. 51-65
Chapter in a Book

Sanchez, A. October 2016. From Big Data to Intelligent Data (“De Un gran volumen de datos a datos inteligentes”) in LANIA Newsletter: year 17 volume 17 pp. 1-2
Ball, L. Payne, D. Sanchez, A. Nov. 1-4, 2015 Preparing Students for a Capstone Design Course EDSIG 2015 Conference on Information Systems and Computing Education Wilmington, NC.. Paper #3439, available at <http://proc.iscap.info/2015/default.html>.

Sanchez, A. Ball Burnell, L. (2015). July 2015. Big Data to Smart Data: Teaching Data Mining and Visualization Presented at the The 2015 Int'l Conf. on Frontiers in Education: CS & CE (FEC2460). Las Vegas, Nevada

Teaching Big Data: Programming and Applying Data Mining and Visualization (Coauthor) Presented at the 49th ACET 2013 Conference, Baylor University, Waco, Texas (ACET 2013). Waco, Texas October 2013.

SAD: A Stream of Thought Model for Anxiety and Depression □ (Coauthor) Poster presented at the 29 Florida AI Research Society (Flairs 29) St Pete Beach, Florida, May 2013.

“From Information to Knowledge (Data Mining Applications)” in the 5th Foro de Empredurismo of the Panamenian Association of Managers in Panama City, Panama June 2012

Lisa Burnell and Antonio Sanchez (2013). A Model for Stream of Thought in Anxiety and Depression. Proceedings of the 24th Midwest Artificial Intelligence and Cognitive Science Conference (MAICS 2013). New Albany, Indiana. April 13-14. pp 9-13.

“Chapter 12: A Smart Home Lab as a Pedagogical Tool” (Coauthor) in *Intelligent and Adaptive Educational Learning Systems: Achievements and Trends*, Peña-Ayala, Alejandro (Ed.) Vol. 17 New York: Springer 2012

“Smart Home Technologies; Uses and Abuses” (Coauthor) in Sidorov G, Hernandez A. Reyes C.A. (ed) *9th MICAI Artificial Intelligence* pp. 97-102 Los Alamitos, Ca: IEEE Computer Society 2010

SDBI: An Ontology Based Smart Home Lab Environment in WILE Workshop MICAI'08 Mexican Conference on AI, Mexico, November 2009.

“Service Robots on a Smart Home Lab” (Coauthor) in Workshop on Service Robots of MICAI'08 Mexican Conference on AI, Mexico, 2008.

Un componente basado en agentes para identificar los riesgos de los adultos mayores en su hogar mediante ontologías in Workshop on Medical Applications of ENC'08 Mexicali, Mexico Octubre, 2008.

The Use of Collective Learning for Image Recognition and Segmentation in IEEE Metrocon Arlington, Tx, August, 2008.

Spoken commands in a Smart Home: *An iterative approach to the Sphinx Algorithm*
MICAI'07 Sixth Mexican Conference on AI, Tlaxcala, Mexico, November, 2007. Springer Verlag .

Summer Interuniversity Research: *The Crescent Lab experience for international graduate students* ENC'07 Eight Mexican International Conference on Computer Science, Morelia, Mexico September, 2007. IEEE Computer Society Alamitos, Ca.

From Information to Knowledge: The continuous need to teach AI (Coauthor)
MICAI'06 Fifth Mexican Conference on AI, Tlaxcala, Mexico, November, 2006. IEEE Computer Society Alamitos, Ca.

The Crescent Lab: A smart home lab for students ENC'06 Seventh Mexican International Conference on Computer Science, SLP, Mexico September, 2006. IEEE Computer Society Alamitos, Ca.

A CLS Hierarchy for the Classification of Images MICAI 2005 Monterrey Mexico, Noviembre 2005 published as MICAI 2005: Advances in Artificial Intelligence: Alexander Gelbukh, Álvaro Albornoz, Hugo Terashima-Marín (Eds) Lecture Notes in Computer Science Springer-Verlag Volume 3789

Experiences in International Education using Internet 2 XVIII International Conference PBD Organization, Washington D.C. March 2004

Knowledge Focused Education: Consequences of IT, 25th Annual McMaster World Conference , Mc Master University, Hamilton, Ca January 2004-03-03

Énfasis en el Conocimiento: Implicaciones de las TI
Lania Newsletter, Vol 41-42 (2003) pp 1-6

A constructivist educational tool: Software architecture for web-based video games
Fourth Mexican International Conference on Computer Science, Tlaxcala, Mexico September, 2003. IEEE Computer Society Alamitos, Ca.

Public Computing as a utility service X Meeting of CYTED, México, Mex. 2002

Deploying Thin Clients for Public Computing. WERC Sun World Education and Research Conference San Francisco March 2001

Towards an Ontology of Waste Water Treatment Plants, Environment Modelling and Software, Environmental Modelling & Software Vol 14 (1999) 401-408

Uso de las Tecnologías en Java para proveer servicios de cómputo público
Lania Newsletter, Vol 27 (1999) pp 1-6

Think Client Computing (L'informatique sur client léger) Java Enterprise Solutions Symposium. Paris, France April 1999

A Knowledge base for wastewater treatment plants , Expert Systems with Applications, Vol 14-1/2 Jan/Feb 1998 pp 53-61

Telecommunications as a technological opportunity , Boletín de Política Informática Vol 20 - 6 1997 pp 1-10

Simulation facilities for RISC processor data flow and performance optimization, Computers & Industrial Engineering Vol 33-1/2 1997 pp 109-112

AG/SAC : A. Genetic Selection of ALISA parameters
V Iberoamerican Conference on IA : IBERAMIA 96 Cholula, Puebla, Nov. 1996

The use of Cognitive Maps in Virtual Reality
V Iberoamerican Conference on IA : IBERAMIA 96 Cholula, Puebla, Nov. 1996

Data acquisition in water systems
XXI National Conference of ANFEI Puebla, México Oct. 1996

The WWW as an interoperability tool
Soluciones Avanzadas N. 29 Enero 15, 1996

An expert systems for stabilization lagoons
3rd International Conference on Approximation and Optimization in the Caribbean, Puebla, México Oct. 1995 p.p. 59

Hypertalk: A fortunate mix of OOL and software tool, Soluciones Avanzadas Num. 24
Año 3. 1995 pags.

An expert systems for stabilization lagoons
XX Congreso de la Academia Nacional de Ingeniería, Veracruz, Sept 1995 pags 179-183

The Use of Alisa for medical image recognition,
Proceedings of INFOMEDICA 95, Guadalajara, Mexico,
Enero 1995.

Zyanya: EDP Auditing and Expert Systems
II World Congress on Expert Systems, Lisboa, Portugal Enero 1994

Zyanya: Expert Systems in Auditing
IX National Conference of A. I. Veracruz, Ver. July 1992

Performance Metrics for Connectionist Models
IX National Conference of A. I. Veracruz, Ver. July 1992

Expert Systems at Universidad de las Américas
World Congress on Expert Systems, Orlando, Fl. Dec. 1991

Learning Automata: An Alternative to Neural Networks
Symposium on Natural and Artificial Intelligence: in Rudomin, P., Arbib, M.A., Cervantes
Pérez, F., and Romo, P. (Eds.), *Neuroscience: From Neural Networks to Artificial
Intelligence*, Research Notes in Neural Computing, Vol. 4, Springer-Verlag, Heidelberg,
Berlin 1993

Pattern Recognition using a Learning Automata Network
II FAW Workshop on Neural Networks and Adaptive Learning
ULM Germany July 1990

AER: Pattern Recognition Using a Network of Learning Automata.
II Congreso Iberoamericano de I.A. Morelia México Julio 1990

Computing in The Engineering Curricula
Coauthor, Comunidad Informática Num. XIII-40 April 1990
pp 34-38

Organizational Implications in Data Base Systems

I Seminario de Informatica en la Administración Pública
México City, México Dec. 1989

TORDMAC: An Application of CAD/CAM, III National Conference of CAD/CAM,
Puebla, México, Nov. 1989.

PROLOG for Adaptive Learning Models
FAW Workshop on Adaptive Learning, Ulm, West Germany, 1989

Guidelines for the Implementation of a Neural Network for Image Processing
VI National Conference on Artificial Intelligence
Queretaro, México, 1989.

KUY: A Backgammon Learner
VI National Conference on Artificial Intelligence,
Queretaro, México, 1989.

Teaching Computing to Engineers
Coauthor, National Congress of Past, Present & Future of Computer
UNAM, México, June 1988.

Paradigms & Controversies in Machine Translation II
V National Conference on Artificial Intelligence
Yucatán, México, March 1988.

Paradigms & Controversies in Machine Translation I
IV National Conference of Artificial Intelligence
Puebla, México, March 1987.

Translator of the book Software Engineering of R.E. Fairley
McGraw Hill January, 1987

Machine Translation by Conceptual Dependencies
IV Symposium on Applied Linguistics, SMLA
México,, November 1986

PINEL: Expert System in Psychodiagnostic
Coauthor, III National Conference of Artificial Intelligence
Oaxaca, México, March 1986

Disaster Management

Coauthor, International Conference of AMICEE
México, November 1985

Notes on Computer Science Curricula

V Conference on Computers in Higher Education
FAR, Monterrey N.L. México, March 1985

Structure of the SEA Expert System

II National Conference on AI,
FAR, Monterrey, N.L. México, March 1985

Disaster Planning in a Computer Environment

XII Reunión de Automatización de Bancos Centrales
Sto. Domingo, Dominican Republic, November 1984

Expert Systems Design

Semana Nacional de Computación, FAR
México, October 1984.

SEA: Agricultural Expert System

Coauthor, Revista COMPUMUNDO # 6
México, September 1984.

MIDROB: An Intermediate Language for Robot Control

Coauthor, IEEE-LATINCON
México, July 1984.

Symbolic Languages in Engineering

Coauthor, IV Conference on Computers in Higher Education
Guanajuato, México, February 1984.

The HCLSA

I National Conference on Artificial Intelligence, FAR
Guanajuato, México, February 1984.

Analysis of the HCLSA

IEEE-MEXICON
Cuernavaca, Morelos, México, November 1983.

The Use of Symbolic Languages in the Computerized Synthesis of Digital Circuits
Coauthor, 26th. Midwest Conference of Circuits and Systems
Puebla, México, August 1983.

MIDROB: An Intermediate Language for Robot Control
Internal Report Mobile Robot Project
The George Washington University
Washington, D.C., July 1983.

The Hierarchical Collective Stochastic Learning Automation
Doctoral Dissertation,
The George Washington University
Washington, D.C. February 1983

Data Base Aspects in DDP
Coauthor, Comunicaciones-81
Miami, Florida, April 1981.

A Recursive Approach to the CLASFY Algorithm
Coauthor, IX Conference of the CIME
México, November 1980.

Basis for the Hierarchical Learning in Automata
IEEE-MEXICON México, October 1980.

Evaluation of Software Packages for Latin American Banks
Coauthor, VII Conference of the CLAB
Quito, Ecuador, January 1979.

A Model to Process Data for Factibility Analysis of an Industrial Plant Coauthor, I Latin
American Conference of Cost Engineering
México, January 1975.