

Juan J. Vargas' Resume

Visiting Lecturer
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EDUCATION

2004: University of Central Florida, Florida, USA: Ph.D. in Computer Engineering, dissertation: *Data Transmission Scheduling Strategies for Distributed Simulation Using Packet Alloying*.
1991: University of Delaware, Delaware, USA, M.S. in Computer Science, thesis: *Parallelization of Fixed-Point Iterations*.
1988: University of Costa Rica, Costa Rica - B.S. in Mathematics.
1978: University of Costa Rica, Costa Rica - “Licenciado” in Computer Science, thesis: *An emulator for the MIX language*.
1977: University of Costa Rica, Costa Rica - B.S. in Computer Science.

PROFESSIONAL EXPERIENCE

2001 – 2004: University of Central Florida: visiting lecturer.
1999 - 2001: University of Costa Rica, vice-chairman of the School of Computer Science.
1997 - 2000: University of Costa Rica, chair of the Graduate Program in “Telematics” (Computer networks).
1983 - 1985: University of Costa Rica, vice-chairman School of Computer Science.
1997 - present: University of Costa Rica, adjunct professor in the School of Computer Science.
1977 - 1996: University of Costa Rica, instructor in the schools of Mathematics and Computer Science.

1980 – 2000 Experience Summary:

- Taught training courses in computing tools (word processing and spreadsheets) to personnel of “Contraloria General de la Republica” in Costa Rica, a government agency.
- Worked in a team as a consultant of FAO/UN, Project GCPS/COS/007/NOR, to study the feasibility of establishing a Management Information System (MIS) for the “Consejo Nacional de Producción (CNP)”, a government agency.
- Worked as a consultant for the “Dirección General de Aviación Civil”, a government agency.
- Administrator of the Banyan and Novell networks at the School of Computer Science, University of Costa Rica.
- Worked in a team as an auditor for the “Tribunal Supremo de Elecciones”, which is part of the government of Costa Rica, diagnosing problems related to the system of issuing official ID-cards.
- Directed a total of 5 “Licenciatura” and 3 M.S. thesis and has participated as a member in more than 15 thesis defenses.

RESEARCH EXPERIENCE

2002-2004: Worked with Dr. Ronald DeMara at UCF in a research project to simulate a computer network and to assess its bandwidth requirements.

1994: Worked with Prof. Leticia Olguin in a research project on Food Informatics to develop a textual data base of regulations in the production of several kinds of food products.

1985-1989: Worked with Prof. Leticia Olgin in a research project on Juridical Informatics to develop a textual data base including laws, doctrine and jurisprudence, and using keywords for searching. School of Law, UCR.

1982: Worked with Prof. Marcelino Losilla in a research project on Hydrology to study the underground water in the Central Valley of Costa Rica, adapting a mathematical model developed at the Institute of Geological Sciences of England. School of Geology, UCR.

PUBLICATIONS

- Vargas, Juan J.; DeMara, Ronald F.; Gonzalez, Avelino J. & Georgiopoulos, Michael, and Marshall, Henry. "PDU Bundling and Replication for Reduction of Distributed Simulation Communication Traffic." *JDMS: The Journal of Defense Modeling and Simulation: Applications, Methodology, Technology*, 2004. Accepted for publication in November 2004.
- Vargas, Juan J.; DeMara, Ronald F.; Gonzalez, Avelino J. & Georgiopoulos, Michael. "Interim Report: Bandwidth and Latency Implications of Integrated Tactical and Training Communication Networks." Technical report, University of Central Florida, Department of Electrical and Computer Engineering, Orlando, FL, U.S.A., July 6, 2003.
- Vargas, Juan J.; DeMara, Ronald F.; Gonzalez, Avelino J. & Georgiopoulos, Michael. "Bandwidth Analysis of a Simulated Computer Network Running OTB." In *Proceedings of the Second Swedish-American Workshop on Modeling and Simulation (SAWMAS 2004)*, Cocoa Beach, FL, U.S.A., February 2004.
- Vargas, Juan Jose & Calderon, Elpidio: "Creation of a prototype for the programming environment C-Linda under UNIX", *Ingenieria*, vol 6, July / December 1996, University of Costa Rica.
- Vargas, Juan Jose: "Parallelism in Fixed Point Algorithms", III Congress of Informatics and Computing (CIC'95), FERCOMPUTO, Hotel Corobici, San Jose, Costa Rica, 1995.
- Vargas, Juan Jose: "Linda: An Environment for Concurrent Programming". II Congress of Informatics and Computing, FERCOMPUTO, Hotel Herradura, San Jose, Costa Rica, 1993.
- Vargas, Juan Jose & Arce, Manuel: "Towards a simplification of the reticular models of data bases", *Revista de Ciencia y Tecnologia*, vol. III, September 1984, N° 2, University of Costa Rica.

HONORS AND AWARDS

2003: University of Central Florida: Graduate Merit Fellowship.

1989-1991: Scholarship from Fulbright/LASPAU (former *Latin American Scholarship Program of American Universities*, now *Academic and Professional Programs for the Americas*, www.laspau.harvard.edu) to pursue M.S. studies in Computer Science at the University of Delaware.