RAFAEL A. PEREZ

Department of Computer Science and Engineering

University of South Florida, Tampa, Florida 33620

EDUCATION:

Ph.D., Electrical Engineering, University of Pittsburgh, 1973

M.S., Electrical Engineering, University of Pittsburgh, 1967

B.S., Electrical Engineering, New Mexico State University, 1965

EXPERIENCE:

August 2021 to present - **Emeritus Professor**
Department of Computer Science and Engineering, University of South Florida, Tampa, Florida

August 1994 to December 2021 - **Professor**
Department of Computer Science and Engineering, University of South Florida, Tampa, Florida

August 2015 to august 2016 – **Interim Chair**
Computer Science and Engineering Department
College of Engineering, University of South Florida, Tampa, Florida

January 2015 to august 2015 – **Interim Dean**
Patel College of Global Sustainability, University of South Florida, Tampa, Florida

August 2013 to august 2014 – **Interim Dean**
College of Engineering, University of South Florida, Tampa, Florida

December 2005 to August 2015 – **Associate Dean for Academics and Student Affairs**
College of Engineering, University of South Florida, Tampa, Florida

August 2004 to December 2005 **±Associate Chair**
Department of Computer Science and Engineering, University of South Florida, Tampa, Florida

June 2002 to December 2004 – **Graduate Program Director**
Department of Computer Science and Engineering, University of South Florida, Tampa, Florida

August 1987 to August 1994 **- Associate Professor**
Department of Computer Science and Engineering, University of South Florida, Tampa, Florida

May 1984 to August 1986 - **Assistant Chairman**
Department of Computer Science and Engineering, University of South Florida, Tampa, Florida

February 1983 to August 1987 - **Assistant Professor**

Department of Computer Science and Engineering, University of South Florida, Tampa, Florida

June 1974 to February 1983 - **Project Manager**
Westinghouse International Company, New York City
I was responsible for the installation and start-up of complex computer control systems in the metal making and paper industries in the United States and overseas in Spain, Brazil, Mexico, Venezuela, and Yugoslavia. My responsibilities included system integration of all the different control equipment to meet final reliability and production acceptance tests.

August 1972 to June 1974 - **Manager**
Westinghouse Health Systems, New York City
I was responsible for the day-to-day administration of a computerized Medical Testing Center and the supervision of its seven member staff. Hospital patients as well as private patients would come to the Center for a complete battery of tests. An on-line computer would collect and interpret the test data from the patients. Prior to the Center's opening, my responsibilities included working on the overall design of the Center and with the hospital physicians in the selection of the medical tests to be offered, the equipment to do these tests, and their integration with the Center's computer.

June 1970 to August 1972 - **Research Engineer**
Westinghouse Research Laboratories, Pittsburgh, PA
I designed computer programs used to predict the manpower and equipment required by Ambulatory Health Care facilities to serve a given population. These programs were used in consulting contracts with the U.S. Government and private business in the area of health care.

RESEARCH GRANTS AND CONTRACTS:

1. Collaborative Research: Florida Information Technology Graduation Attainment Pathways (Flit-GAP), National Science Foundation, 2021 to 2026, $1,421,774 (USF PI: K. Christensen, USF co-PI: R. Perez, joint with Florida Polytechnic University, $360,000)

5. Co-Principal Investigator, “A REU Site in Computer Science and Engineering”, $308,056, funded by the National Science Foundation, Jan 2008 - December 2010.

6. Co-Principal Investigator, “BPC-DP: CSTEP: Computer Science TransfEr Programs”, $592,715, funded by the National Science Foundation, September 2007 – August 2010.

7. Co-Principal Investigator, “Travel Assistance Device (TAD) to Help Transit Riders”, $82,000, funded by Transportation Research Board of the National Academies – Transit-IDEA (Innovations Deserving Exploratory Analysis) program, December 2006 - December 2007.

8. Co-Principal Investigator, “Enhancing Transit Safety and Security with Wireless Detection and Communication Technologies”, $118,000, funded by Florida Department of Transportation, November 2006 - November 2007.

9. Co-Principal Investigator, “Smart Phone Application to Influence Travel Behavior (TRACT-IT Phase 3)”, $125,000, funded by Florida Department of Transportation, May 2006 - May 2007.

10. Co-Principal Investigator, “Travel Assistance Device (TAD) to Aid Transit Riders with Special Needs”, $87,000, funded by Florida Department of Transportation, December 2005 - December 2006.

11. Co-Principal Investigator, “"A Computer Science and Engineering REU Site for Florida, Puerto Rico and Latin America”, $300,000, funded by the National Science Foundation, April 2005 - September 2007.

12. Co-Principal Investigator, “Wirele

16. Co-Principal Investigator, “Enhancing the Rider Experience using real-time transit information”, $75,000, funded by the National Center for Transit Research and Florida Department of Transportation, July 2003 - October 2004.
17. Principal Investigator, “A Neural Network Model for Worksite Trip Reduction”, $35000 Subcontract work for a project funded by Florida Department of Transportation “Worksite Trip Reduction Manual and Model” PI P. Winters. May 2002 – August 2003
18.

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Sean J. Barbeau, Miguel A. Labrador, Philip L. Winters, Rafael Perez, and Nevine Labib Georggi. "Trac-It - A 'Smart' User Interface For A Real-Time, Location-Aware, Multimodal Transportation Survey," 15th World Congress on Intelligent Transport Systems (ITS WC) 2008, November 2008.

Narin Persad-Maharaj, Sean J. Barbeau, Miguel A. Labrador, Phillip L. Winters, Rafael Pérez, and Nevine Labib Georggi, "Real-time Travel Path Prediction using GPS-enabled Mobile Phones," 15th World Congress on Intelligent Transport Systems (ITS WC) 2008, November 2008.

Sean J. Barbeau, Phillip L. Winters, Nevine L. Georggi, Miguel A. Labrador, and Rafael Perez, "The Travel Assistant Device: Utilizing GPS-Enabled Mobile Phones to Aid Transit Riders with Special Needs," 15th World Congress on Intelligent Transport Systems (ITS WC) 2008, November 2008.

Sean J. Barbeau, Miguel A. Labrador, Alfredo Perez, Phillip L. Winters, Nevine L. Georggi, David Aguilar, and Rafael Perez, "Dynamic Management of Real-Time Location Data on GPS-enabled Mobile Phones," UBICOMM 2008, September-October 2008.

Cesar D. Guerrero, Miguel A. Labrador, and Rafael A. Perez, "REU Sites: Much More than a Research Experience for Undergraduates", Proceedings of ASEE Annual Conference and Exposition, March 2008.

Sean Barbeau, Phillip Winters, Nevine Georggi, Miguel A. Labrador, Rafael Perez, William Kearns and Jim Fozard, "The Travel Assistant Device: Electronic Mobility and Transportation Guidance Assistance for Persons with Cognitive Disabilities", Proceedings of University of Rochester & Microsoft Research Workshop on Intelligent Systems for Assisted Cognition, pp. 193-207, October 12-13, 2007.

Cesar D. Guerrero, Miguel A. Labrador and Rafael Perez, "Enhancing the Global Perspective of REU Site Students", Proceedings of ASEE 2007, June 2007.

David P. Aguilar, Sean J. Barbeau, Rafael A. Perez, Miguel A. Labrador, and Philip L. Winters, "A Comparison of Fix Times and Estimated Accuracies in Application Programming Interfaces (APIs) for GPS-Enabled Mobile Phones", Proceedings of the11th World Conference on Transport Research, University of California, Berkeley, June 2007.

Cesar D. Guerrero, Miguel A. Labrador and Rafael Perez, "Graduate Students Mentoring in REU Sites", Proceedings of ASEE SE 2007, April 2007.

Aguilar, David P., Barbeau, Sean, Labrador, Miguel A., Perez, Alfredo J., Perez, R.A., Winters, P.L. "Quantifying Position Accuracy of Real-Time, Multimo

Ridership On the Basis of Employer Trip Reduction Plans" Transportation Research Record: Journal of the Transportation Research Board #1682.

Colmenares, G., Perez, R.A. "A Reliable Method to Reduce Observations and Variables When Building Neural Network Models " Proceedings of the IV Congreso Interamericano de Computacion Aplicada a la Industria de Proceso, San Jose, Costa Rica, Nov 2 - 5, 1999.

Christensen, K., Callahan, A., Perez, R., “Web Publishing in a First Year Foundations of Engineering Course” 1999 ASEE Southeastern Section Conference.

Colmenares, G., Perez, R.A. "A Data Reduction Method to Train, Test, and Validate Neural Networks" Proceedings of IEEE Southeastcon '98, Orlando, Florida, April 24 - 26, 1998.

Chung, S. W., Perez, R. A., “Why is Problem-Dependent and High-Level Representation Scheme Better in a Genetic Algorithm”, Proceedings of the 1997 ACM Symposium On Applied Computing, San Jose, California, Feb 28 - March 2, 1997.

Pietrzyk, M., Perez, R.A., “Solving Transportation Problems With Artificial Neural Networks” Proceedings of the 3rd Annual World Congress on Intelligent Transportation Systems, Orlan

Florida, April 13-15, 1986.

Perez, R.A., and Varanasi, M. “A Laboratory Environment for Robotics and Vision Research,” International Conference on Robotics and Factories of the Future, Charlotte, NC, December 4-7, 1984.

Perez, R.A., and Li, C.C. “Sensitivity Reduction of a Class of Zero-Sum Two-Player Linear Deterministic Differential Games,” Proceedings of the 1975 IEEE Conference on Decision and Control, Houston, Texas, December 1975.

Perez, R.A., and Li, C.C. “Automated Collection and Reporting of Medical Data,” IEEE Systems, Man and Cybernetics 1974 Conference, Dallas, Texas, October 1974.

Einolf, C.W., Spicher, J.L., Evans, J.M., Perez, R.A., “Physician Manpower Planning for Ambulatory Health Care Facilities,” Journal of the AAMI, Vol. 7, No. 1, pp. 51-52, 1973.

Einolf, C.W., Spicher, J.L., Evans, J.M., Perez, R.A., “An Approach to the Design of Ambulatory Health Care Facilities,” Biomedical Sciences Instrumentation, Vol. 9, pp. 69-72, 1972.

Perez, R.A., and Li, C.C.”Performance Sensitivity of Linear Quadratic Two-Person Differential Games,” Fifth Annual Princeton Conference on Information Sciences and Systems, March 1971.

Christopherson, E.B., Evans, J.M., Perez, R.A., “Extracorporeal Partial Systemic Venous Shunt,” Vol. XVII, Surgical Forum, 1967.

Technical Reports:

“A Primer on Neural Networks Applications in Transportation” CUTR Technical Report, Fall 1995.

“Automatic Knowledge Acquisition for Expert Systems”, Technical Report for Florida High Tech Council Grant, July 1993.

“Automatic Knowledge Acquisition for Expert Systems”, Technical Report for Florida High Tech Council Grant, December 1991.

“Automatic Knowledge Acquisition for Expert Systems”, Technical Report for Florida High Tech Council Grant, December 1990.

“Enhancements to Harris CMOS Wafer Failure Analysis Expert System,” Technical Report for Harris Research Grant, January, 1989.

“An Expert System Implementation for CMOS Wafer Failure Analysis at Sample Probe,” Technical Report for Harris Research Grant, August 1988.

“An Expert System Implementation for Wafer Scheduling,” Technical Report for Harris Research Grant, April 1987.

“Selecting Development Software for an Expert System in Harris Analog Wafer Fab,” Technical Report for Harris Research Grant, August 1986.