

Edwin A. Hernandez-Mondragon, Ph.D.

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Objective

I am looking for a challenging position in wireless and mobility technologies where innovation and software can be bundle together.

Education

Ph.D, University of Florida, Gainesville, FL, Major: Computer Engineering, Research areas: Mobile Computing, Wireless networks, Handoff Optimization, and Adaptable Network Protocols, Linear Prediction, Network Emulation. Dissertation: An Adaptive Networking Protocol for Rapid Mobility Environments Advisor: Dr. Sumi Helal, August 2002

M.Sc. University of Florida, Gainesville, FL. Major: Electrical and Computer Engineering

Research areas: Computer Networks and Intelligent and Information Systems, Thesis: Adaptive Sampling for Network Management. Advisor: Dr. Alan D. George December 1999

B.Sc. Costa Rica Institute of Technology, Costa Rica, Major: Electronics Engineering Thesis:

Monitoring system for a packet data network, RACSAPAQ / Advisor: Dipl-Ing. Luis P. Mendez July 1995

Industry Experience

Principal Staff Software Engineer, October'07 – present. Motorola - Mobile Devices, Plantation, FL. Google Android demo for iDEN carriers, GPS/Packet Data emulation on i876 hardware. Implementation of an innovative user experiences using SVG-(JSR-226) and declarative UIs.

Senior Staff Engineer: November'03-October'07. **Technical lead for Dual Mode Java.**

Carrier: Sprint/Nextel/Boost Mobile. Projects: Motorola ic502, ic402, RAZR v9m, SLVR, ic902 and RAZR2 Virtual Machine implementations. Lead a group of 10-15 engineers in the US and overseas for about 2 years, implemented several features including JSR-179: Location-based APIs following Sprint's specification on location while supporting developer's such as Telenav's, with extensive multimedia support on RTSP for Sprint Movies, Sprint TV, and similar applications running on our Virtual Machine. Interacted with other third party vendors: SEVEN, Teleca, Esmertec, Qualcomm, SUN, Boost Mobile, etc. I also worked on Windows Smartphone platform, MERI VM (Motorola proprietary VM). Experience with many iDEN PTT devices and debugging tools, iDEN VM uses ROS a proprietary operating system and synergy UI. *Member of Patent Review Board and Intellectual Property evaluation (2003-present)*

Technical Program Manager, Microsoft Corporation, Windows Networking, Redmond, WA, August'02-September'03. Designed and implemented Bluetooth Personal Area Networking User Interfaces and Drivers in use Windowx XP/Vista (LongHorn) running IPv4/IPv6 Support. The same implementation was ported over Windows CE as part of Windows Mobile Environments.

Network Engineer, Central American Telecommunication Commission (COMTELCA), Tegucigalpa, Honduras, August'95-May '97

Networking, Videoconference systems (VTEL and H.323), software development for telecommunications and traffic management.

Consultant, United Nations Development Program (UNDP), Tegucigalpa, Honduras, November'96-May '97 Network security and IT consulting

Patents Submitted and Issued

- E. Hernandez, A. Ayyagari, et al. "Method and system for managing power consumption of a network interface module in a wireless computing device," Microsoft Corporation, 2001
- E. Hernandez, A. Helal, RAMON, "Rapid Mobility Network Emulator Method and System," University of Florida. **Issued Pat. 7,231,330**
- E. Hernandez, A. Helal, "System, Apparatus, and Method for Proactive Allocation of Wireless Communication Resources," University of Florida, submitted 2002
- S. Poursabhanian, E. Hernandez, et al, "Bluetooth PAN Driver," Microsoft Corporation, **Issued Pat: 7,269,388**
- A. Krantz, E. Hernandez, et al "Rules-based Network Selection Across Multiple Media," Microsoft Corporation, submitted 2004
- V. Bhanu, E. Hernandez, et al, "Smart Scan for Bluetooth PAN Services," Microsoft Corporation.
- E. Hernandez, K. Ardizzone. "Thumb-based User Interface for Camera Phones," Motorola, Inc, submitted 2005
- E. Hernandez, "Secure USB Drive," Motorola Inc, submitted 2005
- E. Hernandez, J. Tracy "Magnetic Connector", Motorola Inc, **Issued Pat: 7,331,793**

Publications

- E. Hernandez, M. Chideste, and A. George, "Adaptive sampling for network management," Journal of Networks and System Management (JNSM), Vol. 9, No. 4, Dec 2001.
- E. Hernandez, A. Helal, "Predictive Mobile IP for Rapid Mobility," IEEE Conf. WLN 2004, Tampa, FL.
- E. Hernandez, A. Helal "RAMON: An emulation approach," IEEE Conf. LCN 2002, Tampa, FL
- E. Hernandez, A. Helal, "Examining Mobile-IP Performance in Rapidly Mobile Environments: The Case of a Commuter Train," IEEE Conf. LCN 2001, Tampa, FL, Nov 14-16, 2001.
- S. Shah, E. Hernandez, A. Helal, "CAD-HOC: A CAD Like Tool For Generating Mobility Benchmarks In Ad-Hoc Networks," SAINT 2002, Japan, January 2002.
- E. Hernandez "An adaptive protocol for rapid mobile environments," Ph.D. Dissertation, University of Florida, August 2002.
- E. Hernandez. "Adaptive sampling for network management," M.Sc. Thesis, University of Florida, Dec 1999.
- E. Hernandez, Y. Lee. "Monitoring system of a packet data network," B.Sc. Thesis. ITCR, report, July 1995.

Professional

TPC/Reviewer: IEEE Broadnets 2008, IEEE Wireless Networks Magazine, IEEE Transactions on Mobile Computing, IEEE WLN 2005-2007, IEEE GLOBECOM 2005, IEEE SOUTHEAST CONFERENCE 2005

Editorial Board International Journal of Network Management (2007-present)

Tutorials: IEEE SOUTHEAST CONF 2005.Windows Cryptographic API, A Session Keys Paradigm

Honors and Awards

- Fulbright-Scholar 1997-1999
- Ranked 1st in undergraduate studies, July 1995.
- Mention of honor in the Honduran National Science Contest, May 1997.
- Four consecutive academic scholarships undergraduate work at ITCR, 91-95.
- HCS Lab student award, spring 1999.
- *In March 2001, as a co-founder of E-melodies, runner-up during the 2001 UF Business Plan Competition at the University of Florida and winner of the 2002 UF Business Plan Competition in Information Technology.*

Service and Community

Hispanic Graduate Student Association, Finance chair, 2001-2002; Hurricane Mitch Volunteer, Gainesville, FL. October 1998; ACM, IEEE member; St. Andrew's Catholic church, Life Teen Core Member/Young Adult Coordinator, Coral Springs, FL, 2004-2007

Skills

Platform experience: Android, Windows CE, BREW/Qualcomm MSM 6100/6550, Windows (NDIS), and Linux.

Development languages: GNU C/C++, C#, VB.NET, Platform Builder, Java Micro Edition (J2ME), JAVA, and MySQL.

Other programming languages: LISP, PROLOG, FoxPro, Pascal, Embedded design, Intel assembly code (i8051, x86), and TCL/TK.

Internet Networking: 10 yrs of experience, proficient in most networking and mobility protocols

Scientific and engineering tools: MATLAB, pSPICE, OrCAD, Network Simulator (ns-2), wide experience in electronic circuit design, digital design, and low-level debugging tools, including PC-104 and circuit design.

Fluent in Spanish/English and some German/French.

References

Upon Request