

Edwin A. Hernandez-Mondragon, Ph.D.

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Objective

A software engineering position with a leadership role building mobile platforms, experiences, and wireless operating systems.

Professional Experience

Rapid Mobile Technologies, Inc Founder and CEO, 3G/4G Emulation and Mobile Independent Handoffs protected under US patents 7,231,330, and 7,697,508 also known as MobileCAD and MobileIPP.

Motorola Inc, Principal Staff Software Engineer, October 2007 – July 2010. Mobile Devices, Plantation, FL. Top Performer in Motorola iDEN. Technical lead for J2ME and Java Development, Expert in Google Android Platform and Applications development, Kernel-level prototyping, TCP/IP and data support, implemented several components including: HTTP Push/MMS, DRM content management, Webkit and Opera-based browsers, Lead discussions with customer Sprint/Nextel and Nextel International. I defined Android architecture and seeded Android development in Plantation.

Motorola Inc. Senior Staff Engineer: November 2003 - October 2007. iDEN Mobile Devices, Plantation, FL. Java (J2ME) Technical lead for "Dual Mode Devices" (iDEN/CDMA), Lead a team of 15 engineers and implemented several J2ME Features including JSR-179: Location-based APIs, JSR-82: Bluetooth, Call interactions, and others. I supported 3rd party developer partners such as Telenav, MobiTV, Sprint Mail, debugging issues related to RTSP, Memory management, and messaging. As a technical lead I completed Java integration and certification with 3rd party vendors including SEVEN, Teleca, Esmertec, Qualcomm, SUN, and customers such as Sprint and Boost Mobile. I also had technical leadership roles during Windows Smartphone platform development and porting of the MERI VM (Motorola's Virtual Machine), Crypto API libraries, Provisioning, and Multimedia to Windows.

Microsoft Inc. Technical Program Manager, August 2002-September 2003. Windows Networking, Redmond, WA, Designed, implemented, certified Bluetooth Personal Area Networking (PAN) User Interfaces and Drivers in use Windows XP/Vista (LongHorn) running IPv4/IPv6 Support. The same implementation was ported over Windows CE as part of Windows Mobile Environments

COMTELCA, Network Engineer, Central American Telecommunication Commission (COMTELCA), Tegucigalpa, Honduras, August 1995-May 1997. Internet Networking, Videoconference systems (VTEL and H.323), software development for telecommunications and traffic management

Education

Ph.D, University of Florida, Gainesville, FL, Major: Computer Engineering, Areas: Mobile Computing, Wireless Networks, Handoff Optimization, RF Propagation models, 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

Patents and Innovations

- 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, **US Pat. 7,564,810**
- E. Hernandez, A. Helal, RAMON, "Rapid Mobility Network Emulator Method and System," University of Florida. **US Pat. 7,231,330**
- E. Hernandez, A. Helal, "System, Apparatus, and Method for Proactive Allocation of Wireless Communication Resources," University of Florida, **US Pat. 7,697,508**
- S. Poursabahian, E. Hernandez, et al, "Bluetooth PAN Driver," Microsoft Corporation, **US 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, **US Pat: 7,331,793**

Publications

- E. Hernandez, "War of Mobile Browsers," IEEE Pervasive Computing, vol. 8, no. 1, pp. 82-85, Jan.-Mar. 2009
- E. Hernandez, A. Ayyagari, "Heavily-tailed Network Traffic Modeling for Power Management", IEEE Workshop on Performance and Management of Wireless and Mobile Networks Australia, November 2005.
- 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.

Honors and Awards

- Fulbright-Scholar 1997-1999
- Member of "Honduras Global"
- 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, 1991-1995.
- 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.*

Entrepreneurship

Rapid Mobile Technologies, Inc Founder and CEO, 3G/4G Emulation and Mobile Independent Handoffs under patents 7,231,330, and 7,697,508 also known as MobileCAD and MobileIPP.

UBIWIRELESS, LLC Founder, A company dedicated to develop mobile and wireless technologies, including products as RxProfile™ (<http://rxprofile.net>), FUTMOB, and Ad2Fone, among others (Mobile Applications)

Business Plan Competition winner, /runner-up, UF Business Plan Competition 2001-2002.

COMPUNET S. de R. L. Founder and CTO, Honduras pioneer Internet Service Provider founded in 1997 completed operations in November 2009.

Memberships and Professional Service

Community : Mobile Monday Miami Executive Board, Society of Hispanic and Professional Engineers, UF Entrepreneurs Club, Incubate Miami

Honduras Global: Founding member, Honduran talents in the US and Europe

First Tuesday Honduras and El Salvador: Keynote speaker at kick off event, August 11th, 2010

Technical Program Committee and Reviewer, Intl. Journal of Simulation 2009-2010, IEEE Broadnets 2008, IEEE Wireless Networks Magazine, Journal of Systems and Networks Managements, IEEE Transactions on Mobile Computing, IEEE Wireless Networks 2005-2007, IEEE Local Computer Networks 2007-2008, IEEE GLOBECOM 2005, IEEE SOUTHEAST CONFERENCE 2005, many others.

Conference Presenter: Mobile Applications (iPhone, Blackberry, Android) Tegucigalpa Honduras. Webconf Latino, 2010 (Tegucigalpa), Mobile Commerce 2009 (Miami), Mobile Mondays Miami (2009-2010), 4G Wireless Conference (4GWE) Miami, FL January 2010, IEEE Local Computer Networks (LCN) 2002-2004 (Tampa, FL)

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

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

Skills

RF: Wireless emulation, propagation models, mobility management,

Platform experience: Linux-based: Android, LIMO, proprietary, Windows-based: Windows CE, J2ME-based: Blackberry, Motorola, Samsung, IOS: iPhone/iPod (phoneGap), other: BREW, AMSSS/DMSS,

Development languages: GNU C/C++, C#, VB.NET, PHP, Python, 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: VoIP/SIP protocols, Asterisk, 15 yrs of experience, proficient in most networking and mobility protocols, Handoff protocols (IEEE 802.21), 3G/4G LTE/WiMAX, OpenBTS expert.

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

Fluent in Spanish/English and some German/French.

Hobbies and References

Guitar playing, Reading, Soccer, Latin music/dancing, Stocks/Options

No visa sponsorship required

References available upon request