

# Andres Arjona

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## Summary

- Industry experience with web services integration, wireless broadband deployments, customer engagement and technology marketing
- Experience in project management and enhancing collaboration in global and multinational teams
- Author of multiple scientific publications and recipient of scholarships throughout career
- Web services evangelist and quality of end user experience (QoE) expert

## Education

- **Helsinki University of Technology** - Helsinki, Finland, June 2005  
Master of Science in Data communications software, Double Minor: Bioinformatics and Multimedia Tech  
Thesis grade: 5.0 / 5.0 GPA: 4.0 / 5.0  
Research funds from Telecom industry, Helsinki Univ. of Technology and Mexican government.
- **University of the Americas / Mount Union College** - Mexico City / Alliance USA, June 2003  
Bachelor of Science in Information Systems (cum-laude)  
GPA: 3.65/4.0 (Recipient of Scholarship based on academic excellence)

## Languages

- English (Excellent TOEFL CBT score 270)
- Spanish (Excellent)
- Japanese (Conversational)
- Finnish (Fair)

## Work Experience

### **Manager, Solution Development - Nokia Siemens Networks, May 2005 – to date**

- Lead software architect for Software as a Service (SaaS) solution. The goal is to develop a proof of concept and operator trial that includes most relevant SaaS features: e.g. database multitenancy, high scalability, availability, mashup interface and integrated applications with SOA approach.
- Support quality of end user experience optimization and monitoring for Long Term Evolution (LTE)
- Promote thought leadership, provide technical training and technology marketing & sales support for several technology areas including: voice evolution, quality of experience, web service development, and wireless broadband.
- Provided consultation services for process optimization of a complex global solution
- Led and managed end-to-end performance optimization projects on VoIP over wireless broadband network convergence and interworking solutions. Involved technologies included: 3G, HSPA, WiFi, WiMAX, Mesh networks and MIP.

### **Researcher - Helsinki Univ. of Technology, Oct 2007 – Sep 2008**

- Instructed two Master theses (VoIP and Mobile Grids topics), and tutored six Master's students
- Invited researcher at Birla Institute of Technology, India (Nov'07)

### **Research Assistant - Helsinki Univ. of Technology/Elisa Oy, Nov 2004 – Jul 2005**

- Developed a mobile TV software application in Symbian C++ for Nokia and Elisa

### **Software Developer - Colegio de Postgraduados, Jun 2002 – Feb 2003**

- Developed an arbitrary arithmetic simulator in C and GUI interfaces in Visual Basic

### **Teaching Assistant - University of the Americas, Jan 2000 – Aug 2002**

- Taught Java/C++ Programming courses and developed the official University website

### **Real State Salesman - Bugambillas S.A. de C.V., Nov 1998 – Feb 1999**

### **Journal publications:**

1. A. Arjona, C. Westphal, A. Ylä-Jääski, M. Kristensson “**Towards High Quality VoIP in 3G Networks: An Empirical Approach**” Intl. Journal of Communications, Network and System Sciences 2008.
2. A. Arjona, C. Westphal, J. Manner, A. Ylä-Jääski, S. Takala “**Can the Current Generation of Wireless Mesh Networks Compete with Cellular Voice?** Elsevier Computer Communications Journal, 2008
3. E. Arjona, G. Bueno, A. Arjona “**Computational Algorithms for Animation of Industrial Simulation Models**” Communications on Socioeconomics, Statistics and Informatics Journal, Vol. 8 Num. 2, 2004.
4. E. Arjona, G. Bueno, A. Arjona “**Improving the Numerical Accuracy of Digital Continuous Simulation Results Using Arbitrary Precision Arithmetic**” Communications on Socioeconomics, Statistics and Informatics Journal, Vol. 6 Num. 1, 2002.

### **Peer-Reviewed Conferences:**

1. A. Arjona, C. Westphal, A. Ylä-Jääski, M. Kristensson “**Towards High Quality VoIP in 3G Networks: An Empirical Study**” IEEE AICT’08, Athens Greece, June 8-13, 2008. (**BEST PAPER AWARD**)
2. A. Arjona, A. Ylä-Jääski “**Mobile IP as an Enabling Technology for VoIP in Metropolitan Wireless Mesh Networks**” IEEE VTC’08-Spring, Singapore, May 11-14, 2008.
3. A. Arjona, J. Kerttula, A. Ylä-Jääski “**Live Network Performance Challenge: FLASH-OFDM vs. HSDPA**” IEEE AINA’08, Okinawa Japan, March 25-28, 2008.
4. A. Arjona, A. Ylä-Jääski “**VoIP Call Signaling Performance and Always-On Battery Consumption in HSDPA, WCDMA and WiFi**” IEEE WICOM’07, Shanghai China, Sept. 21-23, 2007.
5. A. Arjona, C. Westphal, S. Takala “**Empirical Analysis of the Single-Radio Mesh Architecture Performance. Limitations and Challenges**” ACM IWCMC’07, Hawaii USA, August 12-16, 2007.
6. A. Arjona, H. Verkasalo “**Unlicensed Mobile Access (UMA) - Handover and Packet Data Performance Analysis**” IEEE ICDT’07, Silicon Valley USA, July 1-6, 2007.
7. A. Arjona, S. Takala “**The Google Muni WiFi Network – Can it Compete with Cellular Voice?**” IEEE AICT’07, Morne Mauritius, May 13-19, 2007. (**BEST PAPER AWARD**)
8. A. Arjona, T. Grenman “**Evaluation Criteria for Digital Rights Management Schemes with Focus on e-Business**” In ECITE’05, Turku Finland, September 29-30, 2005.
9. T. Miaoqing, A. Arjona, A. Ylä-Jääski “**Real-time Service Migration of VoIP Services**” IEEE UBICOMM’08, Valencia Spain, September 28 – October 4, 2008.
10. L. Bhebhe, A. Arjona “**Data Outage Across 2G & 3G Wireless Networks**” IEEE WoWMoM’08, New Port Beach CA, USA, June 23-27, 2008.
11. R. Chowdhury, A. Arjona, J. Lindqvist, A. Ylä-Jääski “**Interconnecting Multiple Home Network Services**” IEEE ICT’08, St. Petersburg, Russia, June 16-19, 2008.

### **Theses:**

1. A. Arjona “**Internet Protocol Datacasting: Transparent Interactivity Using Different Communication Channels**” M.Sc. Thesis HUT, 2005, awarded highest grade
2. A. Arjona “**E-commerce Systems Design for Small and Medium Companies in Mexico**” B.Sc. Thesis UDLA, 2003

### **IT Skills:**

- **Web services:** MySQL, Ajax, Javascript, Perl, Python, PHP, XML, HTML/CSS, SOAP, SOA, and Mashups
- **Network:** TCP/IP, WiFi standards, 3GPP standards (LTE/HSPA), performance monitoring and analysis
- **Software:** R Statistics, MATLAB, MS Powerpoint, Word, Excel, Windows, Linux and Java/C++ programming

### **Honors and Awards:**

- Recipient of multiple scholarships and research funds throughout career
- Best Paper Award winner, IEEE AICT’07, AICT’08
- Ranked Top 10% of the generation (M.Sc. and B.Sc.)
- Captain of University basketball team 2000-2002 (B.Sc.)

### **Community Service:**

- Reviewer for IEEE Wireless Communications Magazine, IEEE Transactions on Wireless Communications and Wiley Wireless Communications and Mobile Computing Journals
- Reviewer for IEEE AICT’09, AICT’08, ICDT’08, VTC’08-Spring, VTC’09-Spring, AICT’09, WCNC’09

### **Other Trainings and Activities:**

- Attended certified project management trainings and others in IP and wireless technologies
- Short Internship at the Quants Dept. at Credit Suisse Tokyo Branch (2006)