

Javier Gonzalez-Sanchez

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EDUCATION

- 2016 **Ph.D. Computer Science**
Arizona State University, Tempe, AZ, USA
Dissertation: Affect-Driven Self-Adaptation: A Manufacturing Vision With A Software Product Line Paradigm
Advisor: Dr. Winslow Burleson
- 2000 **M.S. Electrical Engineering with Computer Science major**
Center for Research and Advanced Studies of the National Polytechnic Institute, Guadalajara, JAL, Mexico
Thesis: Parallellism Extraction from Visual Programming Models for Automatic Generation of Parallel Programming Code
Advisor: Dr. Raul Jacinto-Montes
- 1997 **B.S. Computer Engineering** (graduated *summa cum laude*)
Universidad de Guadalajara, Guadalajara, JAL, Mexico

HONORS AND AWARDS

- 2017 IEEE Senior Member Award. 10% of IEEE members hold this grade, which requires extensive experience, and reflects profesional maturity and documented achievements of significance. Granted by IEEE, USA.
- 2017, 2015 Love of Learning Award. Granted by The honor society of Phi Kappa Phi. USA.
- 2014 ACM Senior Member Award recognizing ACM members with at least 10 years of professional experience who have demonstrated performance that sets them apart from their peers. Granted by ACM, USA.
- 2013 Teaching award to the top 10% of teachers who by their dedication, effort, and love left their mark on their alumni through 70 years of institution history. Granted by the Alumni Associated Vice-Presidency of Tecnologico de Monterrey, Mexico.
- 2009–2012 Scholarship for Ph.D. studies (fully supported tuition and stipend for 4 years). Granted by Arizona State University in partnership with the Mexican National Council of Science and Technology, USA.
- Spring 2008 Excellence in professionalism award. Granted by the School of Engineering and Architecture, Tecnologico de Monterrey, Guadalajara campus, Mexico.
- Spring 2008 Teaching award. Granted by the School of Engineering and Architecture, Tecnologico de Monterrey, Guadalajara campus, Mexico.
- Fall 2007 Excellence in professionalism award. Granted by the School of Engineering and Architecture, Tecnologico de Monterrey, Guadalajara campus, Mexico.
- Fall 2006 Excellence in professionalism award. Granted by the School of Engineering and Architecture, Tecnologico de Monterrey, Guadalajara campus, Mexico.
- Spring 2004 Teaching award. Granted by the School of Engineering and Architecture, Tecnologico de Monterrey, Guadalajara campus, Mexico.
- Spring 2002 Teaching award. Granted by the School of Engineering and Architecture, Tecnologico de Monterrey, Guadalajara campus, Mexico.
- 1999 Creativity and technological innovation award. Granted by the Association Internationale des Etudiants en Sciences Economiques et Commerciales (AIESEC). Durban, South Africa.

1997–1999 Scholarship for M.S. studies (fully supported tuition and stipend for 2 years). Granted by the Mexican National Council of Science and Technology, Mexico.

RESEARCH EXPERIENCE

- 2010–2016 **Advancing Next Generation Learning Environments Lab.** Arizona State University. Tempe, AZ, USA. Research Assistant to Dr. Robert Atkinson. Assisted with transdisciplinary research exploring and innovating technologies designed to enhance interactive learning environments. Applied physiological sensors, eye-tracking systems, face-based affect recognition software, and brain-computer interfaces to study the cognitive and affective dimensions of the learning process. Advanced development approaches for affect-aware and affect-driven self-adaptive systems. Prototyped mobile learning and augmented reality applications.
- 2009–2013 **Affective Meta Tutor Group.** Arizona State University. Tempe, AZ, USA. Research Assistant to Dr. Kurt VanLehn and Dr. Winslow Burlison in an NSF-funded project. Assisted with research exploring the impact of including affect recognition and meta-tutoring capabilities into an intelligent tutoring system (ITS) to foster long-lasting shifts in learning strategy. Designed, developed, and evaluated an ITS with adaptive capabilities (driven by affective measurements and user modeling); developed the ITS by applying software patterns and component-based software engineering. Supervised and coached seven undergraduate students developing software.
- 2009 **Motivational Environments Group.** Arizona State University. Tempe, AZ, USA. Research Assistant to Dr. Winslow Burlison. Assisted with evaluating computer-based emotion recognition by comparing computer face-based emotion recognition with human emotion perception; at the conclusion of this project, it was deployed as an interactive exhibit to the Exploratorium Museum of California.
- 1997–1999 **Software Engineering Group.** Center for Research and Advanced Studies of the National Polytechnic Institute. Guadalajara, JAL, Mexico. Research Assistant to Dr. Raul Jacinto-Montes. Assisted in advancing parallel computing adoption by developing a visual-based programming environment that allows users to create complex parallel systems. Parallel systems are conceptualized as multidimensional visual models resulting from the interconnection of representative icons of atomic structures; visual models are analyzed and improved using a hierarchical Petri-Nets formalism and are used to automatically generate parallel source code in C/C++ with the necessary inlaid elements of openMP or Pthreads.
- 1995–1997 **High Performance Computing Center.** Universidad de Guadalajara. Guadalajara, JAL, Mexico. Research Assistant to Dr. Bertha Marquez-Azua. Assisted with the project “Tectonic Plate Movement and Active Volcano Monitoring” processing and analyzing Global Positioning System (GPS) measurements. Developed parallel systems for research in seismic monitoring and GPS data visualization.

TEACHING EXPERIENCE

- 2016-present **Arizona State University.** School of Computing, Informatics, and Decision Systems Engineering
Tempe, AZ, USA
Lecturer for undergraduate and graduate courses:
- Software Factory I and II (SER517 / SER518), 1 section each
 - Software Agility: Process and Project Management (SER516), 1 section
 - Advanced Graphics (SER431), 1 section
 - Computing Capstone I and II (SER401 / SER402), 1 section
 - Introduction to Software Engineering (CSE360), 2 sections
 - Introduction to Graphics and Game Development (CSE332), 2 sections
 - Introduction to Programming Languages (CSE240), 4 sections
 - Principles of Programming (CSE110), 1 section

Responsible for teaching the course in large lecture classes of more than 100 attendees, populated with undergraduate-senior students and new graduate students taking it as a deficiency course. Capstone project coordinator, responsible for liason with industry partners.

2013–2015 **Arizona State University.** School of Computing, Informatics, and Decision Systems Engineering
Tempe, AZ, USA
Instructor for the course

Principles of Programming Languages (CSE 340), 7 sections.

2011–2016 **Arizona State University.** School of Computing, Informatics, and Decision Systems Engineering
Tempe, AZ, USA
Teaching assistant for graduate courses:

Seminar on Software Engineering Principles (CSE 591), Dr. James Collofello, 10 sections
Software Validation, Verification and Testing (CSE 565), Dr. James Collofello, 6 sections
Software Project, Process and Quality Management (CSE 566), Dr. James Collofello, 5 sections
Computer Graphics (CSE 470), Dr. Ross Maciejewski, 1 section

2010–2014 **Arizona State University.** School of Computing, Informatics, and Decision Systems Engineering
Tempe, AZ, USA
Guest lecturer in graduate and undergraduate courses:

Human Centered Ubiquitous Computing (CSE 591), Dr. Winslow Burleson,
Dynamics of Perception, Action and Cognition (PSY 598), Dr. Mina Johnson,
Math Foundations of Informatics (CPI 200), Dr. Winslow Burleson
Introduction to Informatics (CPI 101), Dr. Robert Atkinson,

2000–2008 **Tecnologico de Monterrey, Guadalajara campus.** Department of Computer Science
Guadalajara, JAL, Mexico
Teaching professor for undergraduate problem-based and project-oriented courses:

Computer Science II (C++ programming), 21 sections
Computer Science I (Java programming), 18 sections
Compilers, 11 sections
Computing for Engineering (C programming), 7 sections
Internet and Distributed Applications Development, 6 sections
Architectures for Software Development, 4 sections
Data Structures, 4 sections
Analysis Methodologies and System Design II (software engineering), 3 sections
Introduction to the Profession of Electronics and Information Technologies, 2 sections
Introduction to Computer Science, 2 sections
Project Problem Solving with Programming, 2 sections

2003–2005 **Universidad de Guadalajara,** Economics and Management School
Guadalajara, JAL, Mexico
Adjunct professor for graduate course in the Masters in Information Technology program:

Databases, 5 sections

2002–2004 **Universidad de Guadalajara, La Cienega campus.** Department of Graduate Studies
Ocotlan, JAL, Mexico
Adjunct professor for graduate courses in the Masters in Applied Computing program:

Operating Systems, 3 sections
Analysis and Design of Software Systems, 2 sections
Programming Projects, 2 sections
Object Oriented Programming, 1 section

ADVISING, MENTORING, AND TUTORING

Thesis Committees

- 2017 Abir Lal Saha. Master of Science in Software Engineering. Arizona State University. **Committee Member**, July 2017. Thesis: A Comparative Analysis of Graph vs Relational Database For Instructional Module Development System.
- Seema Suresh. Master of Science in Software Engineering. Arizona State University. **Committee Member**, June 2017. Thesis: Next-Generation Smart Cars: Towards a More Intelligent Interactive Infotainment.
- Shujian Ke. Master of Science in Software Engineering. Arizona State University. **Committee Member**, April 2017. Thesis: Feature Adaptive Ray Tracing of Subdivision Surfaces.
- Shweta Murthy. Master of Science in Software Engineering. Arizona State University. **Committee Member**, April 2017. Thesis: Modeling and Design Analysis of Facial Expressions of Humanoid Social Robots Using Deep Learning Techniques.
- 2007 Sandra Calzada-Delgado. Master of Information Technology. Universidad de Guadalajara. **Chair**, May 2007. Thesis: Design and Implantation of an Information System to Manage the Archaeological Sites in the Sayula River Basin.
- 2006 Alejandro Ayala-Lopez. Master of Information Technology. Universidad de Guadalajara. **Chair**, January 2006. Thesis: Applying Data Mining to the Analysis of Poverty Zones in Mexico.
- Ismael Ledesma-Tello. Master of Applied Computing. Universidad de Guadalajara. **Chair**, January 2006. Thesis: Three-dimensional Modelling of Tectonic Displacement in Mexico.
- Xotchilt Castrillo-Trinoco. Master of Applied Computing. Universidad de Guadalajara. **Chair**, January 2006. Thesis: Web-based Platform for Periodicals Publications.

Mentoring

Arizona State University. School of Computing, Informatics, and Decision Systems Engineering
Tempe, AZ, USA

- 2013–2016 Mentored 7 Computer Science and Engineering capstone projects. Capstone teams designed, implemented, and documented augmented reality apps and affect-driven self-adaptive systems through the spring and fall semesters.
- 2012 Research advisor for a capstone team working on the development of an emotional-aware video game using brain-computer interfaces for emotion recognition and XNA game development platform. Co-authored (Bernays et. al 2012).
- Tecnologico de Monterrey, Guadalajara campus.** Department of Computer Science
Guadalajara, JAL, Mexico
- 2006, 2007 Mentored the Mexican undergrad teams that participated in the international Microsoft Imagine Cup contest (software development category), an international contest that gathered 48 worldwide semifinalist teams (one from each country); in Mexico, the national elimination gathered about 100 teams from colleges and universities. In 2007 in Seoul, Korea, the team obtained an honorable mention (one of the top 6 teams). In 2006 in Delhi, India, the team was part of the top 20 worldwide finalists.
- 2005, 2006 Mentored the university teams for the Regional ACM International Collegiate Programming Contest.

Student Groups

Tecnologico de Monterrey, Guadalajara campus. Department of Computer Science
Guadalajara, JAL, Mexico

2006-2008 **Microsoft Academic Student Cell.** Academic coordinator and tutor.

PROFESSIONAL EXPERIENCE

Academic Administrative

2006–2008 **Tecnologico de Monterrey, Guadalajara campus**
Guadalajara, JAL, Mexico
Academic Program Director of B.S. in Computer Systems Engineering (ABET accredited program).
Responsible for 200 students. Increased the participation and success of Mexican student teams in national and international contests, conferences, and internships. Improved the liaison with the regional industry and community. Received software licenses and grants for \$30,000 USD to support projects and events.

Business Administrative

2011–present **iosProject, LLC**
Guadalajara, JAL, Mexico
Co-owner and Principal. Directed and developed geolocation and augmented reality apps for mobile devices.

2002–2006 **S+ / TallerSur Multimedia, LLC**
Guadalajara, JAL, Mexico
Joined this startup company as chief of software engineering. Responsible for analysis, design, and implementation of desktop and web applications.

1999–2000 **Diseño y Desarrollo Tecnológico LLC**
Guadalajara, JAL, Mexico
Participated in the startup phase of the company as chief of software engineering. Responsible for analysis, design, and implementation of computer systems and web applications.

Consulting

2005–2008 **Software Industry Excellence Center (a partner organization of CMU Software Engineering Institute)**
Guadalajara, JAL, Mexico
Coached four companies for CMMi level 3 certification; trained them in the Technical Solution process area and instructed them in the Rational unified process, UML, and software design patterns. All achieved certification.

Software Project Manager

2000–2005 **Universidad de Guadalajara, Office of the Chief Information Officer**
Guadalajara, JAL, Mexico
Directed software design and development of robust solutions in a timely manner. Designed and implemented more than 12 web-based scalable applications for clients in Mexico, Brazil, and Honduras. Projects were sponsored by the University in association with the Mexican National Council of Science and Technology (CONACYT), the Mexican Association of Universities and Higher Education Institutions (ANUIES), the Mexican Social Security Institute (IMSS), the Pan American Health Organization (PAHO), and the Universidad Nacional Autonoma of Honduras (UNAH), among others. Projects included the following:

Project: **Virtual Academic Community in Health Science**
Principal Investigator: Alfredo Hidalgo-San Martin, Director BVS Adolec Mexico

Project Manager. Managed the development of a Web platform to achieve virtual collaboration between health researchers at the University and other institutions. Sponsored by the Mexican Social Security Institute (IMSS) (2002–2005).

Project: e-Collections: Digital Library

Principal Investigator: Hector Gomez-Hernandez, General Chair of Information Systems at Universidad de Guadalajara

Project Manager. Architected and managed the development of a digital library for Universidad de Guadalajara. Applied Java servlets and XML with Oracle databases. The user front-end is available at <http://www.e-gnosis.udg.mx>. Sponsored by the Jalisco State Council of Science and Technology (COECYTJAL) and the Mexican National Council of Science and Technology (CONACYT) (2002–2005).

Project: Software Platform for Virtual Conferences

Principal Investigator: Alfredo Hidalgo-San Martin, Director BVS Adolec Mexico

Project Manager. Architected and developed the first platform in Mexico to support virtual interaction emulating a conference environment. Applied PHP programming with MySQL databases. The user front-end was available at <http://www.congresoadolec.udg.mx>. Sponsored by the Mexican Social Security Institute (IMSS) in collaboration with Pan American Health Organization (PAHO) and Universidad de Guadalajara (2001–2002).

Software Engineer

1997-2000 **Universidad de Guadalajara, High Performance Computer Center**

Guadalajara, JAL, Mexico

Designed, prototyped, developed, and deployed next generation systems. Wrote maintainable and extensible code in a team environment. Projects included the following:

Project: Regional Indicators of Science and Technology

Principal Investigator: Hector Gomez-Hernandez, General Chair of Information Systems at Universidad de Guadalajara

Developer. Developed an information system to handle, report, and process science and technology indicators of the western regional Mexican universities and research institutions. Applied Java servlets programming with Oracle databases. Sponsored by the Mexican National Council of Science and Technology (CONACYT). (1999–2001)

Project: Information System to support the Honduran Higher Education System

Principal Investigator: Hector Gomez-Hernandez, General Chair of Information Systems at Universidad de Guadalajara

Developer. Developed system using CGI with Oracle databases. Sponsored by the National Autonomous University of Honduras in collaboration with the Mexican National Association of Universities and Higher Education Institutions (ANUIES). (1998–1999)

Project: OutSight: information system for marketing, human resources, and enrollment

Principal Investigator: Guillermo Galan, National Committee of AISEC in Mexico

Developer. Applied CGI with Oracle databases. Project developed for the Association Internationale des Etudiants en Sciences Economiques et Commerciales (AIESEC Mexican chapter). Project won the creativity and innovation in technology award in Durban, South Africa in 1999. (1998–1999)

Project: Online catalogues of graduate academic programs, services, cultural activities, and strengths of Superior Education Institutions

Principal Investigator: Pascual Alonso-Covarrubias, Director of the High Performance Computing Center

Developer. Applied CGI with Oracle databases. Sponsored by the Mexican National Association of Universities and Higher Education Institutions (ANUIES). (1997–2000)

Project: Control of fuel sales and tracking of transport units via the Internet

Principal Investigator: Pascual Alonso-Covarrubias, Director of the High Performance Computing Center

Developer. Applied Microsoft SQL server and Microsoft Visual Interdev. Project developed for the company Combustibles Controlados S.A. (1997–1998)

Project: **Siglo 21, online newspaper**

Principal Investigator: Pascual Alonso-Covarrubias, Director of the High Performance Computing Center
Developer. Applied CGI with TCL and interfaces with Oracle databases. Developed for Siglo 21 newspaper in Guadalajara. (1996–1998)

Project: **Online catalogue of hotels and lodging services in Mexico**

Principal Investigator: Pascual Alonso-Covarrubias, Director of the High Performance Computing Center
Developer. Applied CGI with Oracle databases. Developed for the company Hotelmex S.A. (1996–1998)

PUBLICATIONS

Journal Papers

Zhang, L., VanLehn, K., Girard, S., Burleson, W., Chavez-Echeagaray, M.E., **Gonzalez-Sanchez, J.**, and Hidalgo-Pontet, Y. (2014). Evaluation of a Meta-tutor for Constructing Models of Dynamic Systems. *Computers & Education*, Volume 75, June 2014, 196-217, ISSN 0360-1315, doi: 10.1016/j.compedu.2014.02.015.

Denham, A. R., **Gonzalez-Sanchez, J.**, Chavez-Echeagaray, M.E., and Atkinson, R. K. (2012). Mobile Applications as Tools to Support Embodied Learning: Current Practice and Future Directions. *International Journal of Cyber Behavior, Psychology and Learning (IJCPL)*, Volume 2(4), 1-16, ISSN: 2155-7136, doi: 10.4018/ijcbpl.2012100101

Gonzalez-Sanchez, J., Conley, Q., Chavez-Echeagaray, M.E., and Atkinson, R. K. (2012). Supporting the Assembly Process by Leveraging Augmented Reality, Cloud Computing, and Mobile Devices. *International Journal of Cyber Behavior, Psychology and Learning (IJCPL)*, Volume 2(3), 86-102. ISSN: 2155-7136, doi: 10.4018/ijcbpl.2012070107.

Full Conference Papers

Lujan-Moreno, G, Atkinson R., Runger G., **Gonzalez-Sanchez J.**, and Chavez-Echeagaray M.E. (2014). Classification of Video Game Players Using EEG and Logistic Regression with Ridge Estimator. In Workshops Proceedings of the 12th International Conference on Intelligent Tutoring Systems (ITS). Honolulu, HI, US. 5-9 June. Springer.

Gonzalez-Sanchez, J., Chavez-Echeagaray, M.E., VanLehn, K., Burleson, W., Girard, S., Hidalgo-Pontet, Y., and Zhang, L. (2014). A System Architecture for Affective Meta Intelligent Tutoring Systems. Proceedings of the 12th International Conference on Intelligent Tutoring Systems (ITS). Honolulu, HI, USA. June 5-9, 2014. Springer. LNCS 8474, pp. 529–534. doi:10.1007/978-3-319-07221-0_67

VanLehn, K., Burleson, W., Girard, S., Chavez-Echeagaray, M.E., **Gonzalez-Sanchez, J.**, Hidalgo-Pontet, Y., and Zhang, L. (2014). The Affective Meta-Tutoring Project: Lessons Learned. Proceedings of the 12th International Conference on Intelligent Tutoring Systems (ITS). Honolulu, HI, USA. June 5-9, 2014. Springer. LNCS 8474, pp. 84–93. doi: doi:10.1007/978-3-319-07221-0_11

Girard, S., Chavez-Echeagaray, M.E., **Gonzalez-Sanchez, J.**, Hidalgo-Pontet, Y., Zhang, L., Burleson, W., and VanLehn, K. (2013). Defining the Behavior of an Affective Learning Companion in the Affective Meta-Tutor Project. Lecture Notes in Computer Science. Artificial Intelligence in Education. Proceedings of the 16th International Conference on Artificial Intelligence in Education (AIED). Memphis, TN, USA. July 2013. Springer-Verlag Berlin Heidelberg. Volume 7926 LNAI, pp 21-30. ISSN: 0302-9743. doi: 10.1007/978-3-642-39112-5_3.

Zhang, L., Burleson, W., Chavez-Echeagaray, M.E., Girard, S., **Gonzalez-Sanchez, J.**, Hidalgo-Pontet, Y., and VanLehn, K. (2013). Evaluation of a Meta-Tutor for Construction Models of Dynamic Systems. Lecture Notes in Computer Science. Artificial Intelligence in Education. Proceedings of the 16th International Conference on Artificial Intelligence in Education (AIED). Memphis, TN, USA. July 2013. Springer-Verlag Berlin Heidelberg. Volume 7926 LNAI, pp 666-669. ISSN: 0302-9743. doi: 10.1007/978-3-642-39112-5_84.

- Girard, S., Zhang, L., Hidalgo-Pontet, Y., VanLehn, K., Burleson, W., Chavez-Echeagaray, M.E., and **Gonzalez-Sanchez, J.** (2013). Using HCI Task Modeling Techniques to Measure How Deeply Students Model. Lecture Notes in Computer Science. Artificial Intelligence in Education. Proceedings of the 16th International Conference on Artificial Intelligence in Education (AIED). Memphis, TN, USA. July 2013. Springer-Verlag Berlin Heidelberg. Volume 7926 LNAI, pp 766-769. ISSN: 0302-9743. doi: 10.1007/978-3-642-39112-5_108.
- Gonzalez-Sanchez, J.** (2013). Toward a Software Product Line for Affective-Driven Self-Adaptive Systems. Proceedings of the 35th International Conference on Software Engineering (ICSE) – Doctoral Symposium. San Francisco, California, USA. May 2013. IEEE Press, pp 1381-1384. ISBN: 978-1-4673-3076-3. doi: 0.1109/ICSE.2013.6606722.
- Gonzalez-Sanchez, J.**, Chavez-Echeagaray, M.E., Atkinson, R., and Burleson, W. (2012). Towards a Pattern Language for Affective Systems. Proceedings of the 19th Conference on Pattern Languages of Programs (PLoP). Tucson, Arizona, USA. October 2012. ACM.
- Marquez-Azua, B., Ledesma-Tello, I., **Gonzalez-Sanchez, J.**, and Ascencio-Escamilla, G. (2012). Three-Dimensional Visualisation of the Tectonic Movement Over Mexico by Means of the Global Positioning System (GPS) Measurements. In Lecture Notes in Geoinformation and Cartography. True-3D in Cartography: Autostereoscopic and Solid Visualisation of Geodata. Springer Berlin Heidelberg, pp 239-255. ISSN: 1863-2246. doi:10.1007/978-3-642-12272-9_16.
- VanLehn, K., Burleson, W., Chavez-Echeagaray, M.E., Christopherson, R., **Gonzalez-Sanchez, J.**, Hastings, J., Hidalgo-Pontet, Y., Muldner, K., and Zhang, L. (2011). The Level Up Procedure: How to Measure Learning Gains Without Pre- and Post-testing. Proceedings of the 19th International Conference on Computers in Education (ICCE). Chiang Mai, Thailand: Asia-Pacific Society for Computers in Education. October 2011, pp 96-100.
- Gonzalez-Sanchez, J.**, Chavez-Echeagaray, M.E., VanLehn, K., and Burleson, W. (2011). From Behavioral Description to a Pattern-Based Model for Intelligent Tutoring Systems. Proceedings of the 18th Conference on Pattern Languages of Programs (PLoP). Portland, Oregon, USA. October 2011. ACM. ISBN: 978-1-4503-1283-7. doi:10.1145/2578903.2579164
- Gonzalez-Sanchez, J.**, Chavez-Echeagaray, M.E., Atkinson, R., and Burleson, W. (2011). Affective Computing Meets Design Patterns: A Pattern-Based Model of a Multimodal Emotion Recognition Framework. Proceedings of the 16th European Conference on Pattern Languages of Programs (EuroPLoP). Irsee, Germany. July 2011. ACM, New York, NY, USA, Article 14, 11 pages. ISBN: 978-1-4503-1302-5. doi:10.1145/2396716.2396730.
- Gonzalez-Sanchez, J.**, Chavez-Echeagaray, M.E., Atkinson, R., and Burleson, W. (2011). ABE: An Agent-Based Software Architecture for a Multimodal Emotion Recognition Framework. Proceedings of the 9th Working IEEE/IFIP Conference on Software Architecture (WICSA). Boulder, Colorado, USA. June 2011. IEEE, pp 187-193. ISBN: 978-1-61284-399-5. doi:10.1109/WICSA.2011.32.
- Gonzalez-Sanchez, J.**, Berrelleza, R., and Chavez-Echeagaray, M.E. (2007). Introducing Computer Science with Project Hoshimi. Proceedings of the 22nd International Conference on Object-Oriented Programming Systems Languages and Applications (OOPSLA) Educator Symposium. Montreal, Canada. October 2007. ACM, pp 908-914. ISBN: 978-1-59593-865-7. doi:10.1145/1297846.1297942.
- Navarro-Alvarez, I., **Gonzalez-Sanchez, J.**, Jacinto-Montes, R., Ramos, F., and Gomez, R. (1999). Aseguramiento de la Calidad en la Administración de Proyectos de Desarrollo de Software; Manejo de requerimientos y solución de conflictos [Quality Assurance in Software Project Management; Requirement Management and Conflicts Resolution]. Proceedings of the 25th Latin American Informatics Conference (CLEI). Asuncion, Paraguay. September 1999, pp 347-366.
- Gonzalez-Sanchez, J.**, Navarro-Alvarez, I., and Jacinto-Montes, R. (1999). Un Ambiente de Programación Visual Paralela capaz de Generar Código Sequent y MPI [A Visual Parallel Programming Environment for Automatic Parallel Code Generation Using Sequent and MPI]. Proceedings of the 1999 Mexican International Conference on Computer Science (ENC), Pachuca, Hidalgo, Mexico, September 1999, pp 615-621.

Jacinto-Montes, R., Navarro-Alvarez, I., and **Gonzalez-Sanchez, J.** (1999). Manejo de Requerimientos y Solución de Conflictos en Proyectos de Desarrollo de Software [Requirement Management and Conflict Resolution in Software Development Projects]. Proceedings of the 1999 Mexican International Conference on Computer Science (ENC), Pachuca, Hidalgo, Mexico, September 1999, pp 313-319.

Extended Abstracts

Harris, A., Hoch, A., Kral, R., Teposte, M., Villa, A., Chavez-Echeagaray, M.E., **Gonzalez-Sanchez, J.**, and Atkinson, R. (2014). Including Affect-driven Adaptation to the Pac-Man Video Game. In Extended Abstracts Proceedings of the 18th International Symposium on Wearable Computers (ISWC). Seattle, WA, USA. September 2014. ACM. ISBN: 978-1-4503-3048-0. doi: 10.1145/2641248.2641360.

Gonzalez-Sanchez, J., Chavez-Echeagaray M.E., Atkinson R., and Burlison W. (2014). Multimodal Detection of Affective States: A Roadmap Through Diverse Technologies. In Extended Abstracts Proceedings of the 2014 ACM SIGCHI Conference on Human Factors in Computing Systems (CHI). Toronto, ON, Canada. May 2014. ACM, pp 1-2. doi:10.1145/2559206.2567820.

Gonzalez-Sanchez, J., Chavez-Echeagaray M.E., Gibson D., and Atkinson R. (2013). Multimodal Affect Recognition in Virtual Worlds: Avatars Mirroring User's Affect. Proceedings of the Humaine Conference on Affective Computing and Intelligent Interaction (ACII). Geneva, Switzerland. September 2013. IEEE Press, pp 724-725. ISSN: 2156-8103. doi :10.1109/ACII.2013.133.

Gonzalez-Sanchez, J., Christopherson R., Chavez-Echeagaray M.E., Gibson D., Atkinson R., and Burlison W. (2011). How to Do Multimodal Detection of Affective States? Proceedings of the 11th IEEE International Conference on Advanced Learning Technologies (ICALT) 2011. Athens, Georgia, USA. July 2011. IEEE, pp 654-655. ISSN: 2161-3761. doi:10.1109/ICALT.2011.206.

Gonzalez-Sanchez, J. and Chavez-Echeagaray, M.E. (2010). iPhone Application Development. Proceedings of the 25th International Conference on Systems, Programming, Languages and Applications: Software for Humanity (SPLASH). Reno, Nevada, USA. October 2010. ACM, pp 321-322. ISBN: 978-1-4503-0240-1. doi: 10.1145/1869542.1869629.

Book Chapters

Gonzalez-Sanchez, J., Baydogan, M., Chavez-Echeagaray, M.E., Atkinson, R., & Burlison, W. (2016). Affect Measurement: A Roadmap Through Approaches, Technologies, and Data Analysis. In J. Myounghoon (Ed), *Affective Sciences in Human Factors and Human-Computer Interaction*. Elsevier. (In Press)

Atkinson, R., **Gonzalez-Sanchez, J.**, Chavez-Echeagaray M.E., and Joseph, S. (2015). Data Sensing and Visualization Systems. In J. Michael Spector (Ed.), *The SAGE Encyclopedia of Educational Technology*. First Edition. SAGE Publications, Inc. ISBN-10: 1452258228.

Translated Books

Schilt, H. (2008). *Java, the Complete Reference, Seventh Edition*. McGraw Hill – Osborne. ISBN-10: 0-07-226385-7. English-Spanish translation of the full book (1024 pages). February 2008.

Magazine Articles

Gonzalez-Sanchez, J. and Chavez-Echeagaray, M.E. (2007). Generación G [Generation G]. *MundoTec* (printed edition). Page 6. Number 205. Year XVI. Guadalajara, JAL, Mexico. April 30, 2007.

Chavez-Echeagaray, M.E. and **Gonzalez Sanchez, J.** (2007). Tecnologías de Información - sobrepasando límites y escepticismos [Information Technology - beyond limits and skepticism]. *MundoTec* (printed edition). Page 4. Number 204. Year XVI. Guadalajara, JAL, Mexico. April 23, 2007.

Gonzalez-Sanchez, J. and Chavez-Echeagaray, M.E. (2007). Robotica una ciencia multidisciplinaria. [Robotics, a multidisciplinary science]. MundoTec (printed edition). Page 4. Number 203. Year XVI. Guadalajara, JAL, Mexico. April 16, 2007.

Chavez-Echeagaray, M.E. and **Gonzalez-Sanchez, J.** (2007). Construir videojuegos – una profesión en el siglo XXI [Developing video games, a XXI century profession]. MundoTec (printed edition). Page 10. Number 198. Year XVI. Guadalajara, JAL, Mexico. March 5, 2007.

Chavez-Echeagaray, M.E. and **Gonzalez-Sanchez, J.** (2007). Computación: generando el estilo de vida del siglo XXI [Computing: creating the lifestyle of the XXI century]. MundoTec (printed edition). Page 7. Number 195. Year XVI. Guadalajara, JAL, Mexico. February 12, 2007.

Gonzalez-Sanchez, J. and Chavez-Echeagaray, M.E. (2007). Computación- la profesión de mayor demanda en el mundo [Computer Science- the higher demand profession]. MundoTec (printed edition). Page 9. Number 194. Year XVI. Guadalajara, JAL, Mexico. February 6, 2007.

Gonzalez-Sanchez, J. (2006). Anti-patterns: the better way to make bad software. SG Software Guru Magazine (printed edition). Mexico. September 2006. ISSN: 1870-0888.

PRESENTATIONS

Speaker

Gonzalez-Sanchez, J. (2012). Building Adaptive Software: Software architecture meets Affective computing and Machine learning. Academic Forum 2012, Instituto Tecnológico de La Laguna. Coahuila, Mexico. March 2012.

Gonzalez-Sanchez, J. (2010). Natural User Interfaces, A New Generation of Human-Computer Interaction. Academic Forum 2010, Instituto Tecnológico de La Laguna. Coahuila, Mexico. October 2010.

Gonzalez-Sanchez, J. (2010). Natural User Interfaces, A New Generation of Human-Computer Interaction. 10th International Conference on Computer Systems Engineering. Tecnológico de Monterrey, Guadalajara campus. JAL, Mexico. March 2010.

Gonzalez-Sanchez, J. and Chavez-Echeagaray, M.E. (2007). Information Technology: Exceeding Bounds and Skepticisms. Science and Technology Week, Colegio Nacional de Educación Profesional Técnica (Conalep). Guadalajara, JAL, Mexico. June 2007.

Gonzalez-Sanchez, J. (2006). Developing Java Web Applications, Information Technology Week, Instituto Tecnológico de Zacatecas Sur (ITZAS). Tlaltenango, Zacatecas, Mexico. November 2006.

Gonzalez-Sanchez, J. (2006). Why Study Computer Science? Cervantes High School. Guadalajara, JAL, Mexico. October 2006.

Gonzalez-Sanchez, J. (2005). The Information Technology Career. Science and Technology Week. Instituto Tecnológico de Tequila. JAL, Mexico. December 2005.

Gonzalez-Sanchez, J. (2005). Evolution of Web Development. 1st Conference on Information Technology, Universidad de Occidente. Guamuchil campus, Sinaloa, Mexico. November 2005.

Gonzalez-Sanchez, J. (2004). Software Architectures for Web Development. Catedra Tecnológica 2004, Universidad de Guadalajara. Puerto Vallarta campus, JAL, Mexico. August 2004.

Gonzalez-Sanchez, J. (2004). The Current Context of Web Application Development. Semana Valles de Ciencia y Tecnología, Universidad de Guadalajara, Valles campus. JAL, Mexico. May 2004.

Posters

- Gonzalez-Sanchez, J.**, Chavez-Echeagaray, M.E., Lin, L., Baydogan, M., Christopherson, R., Gibson, D., Atkinson, R., and Burleson, W. (2013). Affect Recognition in Learning Scenarios: Matching Facial- and BCI-Based Values. Proceedings of the 13th IEEE International Conference on Advanced Learning Technologies (ICALT). Beijing, China. July 2013, pp 70-71. ISBN: 978-0-7695-5009-1. doi: 10.1109/ICALT.2013.26.
- Bernays, R., Mone, J., Yau, P., Murcia, M., **Gonzalez-Sanchez, J.**, Chavez-Echeagaray, M.E., Christopherson, R., Atkinson, R., and Kobayashi, Y. (2012). Lost in the Dark: Emotion Adaption. In Adjunct Proceedings of the 25th Annual ACM Symposium on User Interface Software and Technology (UIST). ACM, New York, NY, USA, pp 79-80. ISBN: 978-1-4503-1582-1. doi=10.1145/2380296.2380331.
- VanLehn, K., Burleson, W., Chavez-Echeagaray, M.E., Christopherson, R., **Gonzalez-Sanchez, J.**, Hastings, J., Hidalgo-Pontet, Y., and Zhang, L. (2011). The Affective Meta-Tutoring Project: How to Motivate Students to Use Effective Meta-Cognitive Strategies. Proceedings of the 19th International Conference on Computers in Education (ICCE). Chiang Mai, Thailand: Asia-Pacific Society for Computers in Education. October 2011, pp 128-130.
- Gonzalez-Sanchez, J.** and Chavez-Echeagaray, M.E. (2008). Could Programming Be Cool? Using Lego Mind-storms to Teach Programming. Proceedings of the 39th SIGCSE Technical Symposium on Computer Science Education 2008. Portland, OR, USA. March 2008.
- Gonzalez-Sanchez, J.** and Chavez-Echeagaray, M.E. (2007). Eclipse Plug-in to Aid Generating OpenMP and Pthreads Code through Visual Programming. EclipseCon 2007. Santa Clara, CA, USA. March 2007.
- Hidalgo-San Martin, A., **Gonzalez-Sanchez, J.**, and Hidalgo-Rassmusen, H. (2004). The Construction of a Virtual Conference Platform, Success Case of the 1st Virtual Conference on Youth Health. Proceedings of the 13th Encuentro Internacional de Educacion a Distancia by Universidad de Guadalajara. Guadalajara, JAL, Mexico, November 2004.
- Hidalgo-San Martin, A., Rassmusen, B., **Gonzalez-Sanchez, J.**, and Hidalgo-Rassmusen, H. (2003). A Virtual Strategy for Epidemiological Investigation. 6th Regional Conference on Health Sciences Information (CRICS in Spanish), Puebla, Puebla, Mexico, May 2003.

Tutorials

- Gonzalez-Sanchez, J.**, Chavez-Echeagaray, M.E., Atkinson, R., and Burleson, W. (2014). Multimodal Detection of Affective States: A Roadmap Through Diverse Technologies. ACM SIGCHI Conference on Human Factors in Computing Systems (CHI). Toronto, ON, Canada. May 2014.
- Gonzalez-Sanchez, J.** (2012). Software Architecture: Principles and Practices. International Conference of Software Engineering and Applications (CIISA) 2012. Guadalajara, JAL, Mexico. May 2012.
- Gonzalez-Sanchez, J.**, Chavez-Echeagaray, M.E., Atkinson, R., and Burleson, W. (2012). Multimodal Detection of Affective States: A Roadmap from Brain-Computer Interfaces, Face-Based Emotion Recognition, Eye Tracking and Other Sensors. ACM Conference on Human Factors in Computing Systems (CHI). Austin, Texas, USA. May 2012.
- Gonzalez-Sanchez, J.** (2012). iPhone Application Development. Academic Forum 2012, Instituto Tecnologico de la Laguna. Torreon, Coahuila, Mexico. March 2012.
- Gonzalez-Sanchez, J.** (2012). Data Mining. Academic Forum 2012, Instituto Tecnologico de la Laguna. Torreon, Coahuila, Mexico. March 2012.
- Gonzalez-Sanchez, J.** (2012). Robots with Java Brains. Academic Forum 2012, Instituto Tecnologico de la Laguna. Torreon, Coahuila, Mexico. March 2012.
- Gonzalez-Sanchez, J.** and Chavez-Echeagaray, M.E. (2011). iOS Programming 202: Navigation-Based Applications. Desert Code Camp at Chandler-Gilbert Community College. Phoenix, AZ, USA. April 2011.
- Gonzalez-Sanchez, J.** and Chavez-Echeagaray, M.E. (2011). iOS Programming 101: Getting Started. Desert Code Camp at Chandler-Gilbert Community College. Phoenix, AZ, USA. April 2011.

- Gonzalez-Sanchez, J.** and Chavez-Echeagaray, M.E. (2010). iPhone Programming 101. Desert Code Camp at Chandler-Gilbert Community College. Phoenix, Arizona, USA. November 2010.
- Gonzalez-Sanchez, J.** and Chavez-Echeagaray, M.E. (2010). Natural User Interfaces 101. Desert Code Camp at Chandler-Gilbert Community College. Phoenix, Arizona, USA. November 2010.
- Gonzalez-Sanchez, J.** (2010). Robots with Java Brains. Academic Forum 2010, Instituto Tecnológico de la Laguna. Torreon, Coahuila, Mexico. October 2010.
- Gonzalez-Sanchez, J.** (2010). iPhone Application Development. Academic Forum 2010, Instituto Tecnológico de la Laguna. Torreon, Coahuila, Mexico. October 2010.
- Gonzalez-Sanchez, J.** and Chavez-Echeagaray, M.E. (2010). iPhone Application Development. 25th International Conference on Systems, Programming, Languages and Applications: Software for Humanity (SPLASH). Reno, NV, USA. October 2010.
- Gonzalez-Sanchez, J.** and Chavez-Echeagaray, M.E. (2010). How to Apply Software Architecture and Patterns to Tutoring System Development? 10th International Conference on Intelligent Tutoring Systems: Bridges to Learning (ITS). Pittsburgh, PA, USA. June 2010.
- Gonzalez-Sanchez, J.** and Chavez-Echeagaray, M.E. (2010). How to Code for Accelerometer and Core Location? Desert Code Camp at Devry University. Phoenix, AZ, USA. May 2010.
- Gonzalez-Sanchez, J.** and Chavez-Echeagaray, M.E. (2010). Natural User Interfaces: Connecting Software with the Humanity. Desert Code Camp at Devry University. Phoenix, AZ, USA. May 2010.
- Gonzalez-Sanchez, J.,** Chavez-Echeagaray, M.E., and Barragan, L. (2010). MoCap: Motion Capture. 10th International Conference on Computer Systems Engineering. Tecnológico de Monterrey, Guadalajara campus, JAL, Mexico. March 2010.
- Chavez-Echeagaray, M.E. and **Gonzalez-Sanchez, J.** (2010). Programming LEGO® Mindstorms with Java. 10th International Conference on Computer Systems Engineering. Tecnológico de Monterrey, campus Guadalajara. Guadalajara, Jal., Mexico. March 2010.
- Gonzalez-Sanchez, J.** (2010). Programming with iPhone SDK. 10th International Conference on Computer Systems Engineering. Tecnológico de Monterrey, Guadalajara campus, JAL, Mexico. March 2010.
- Gonzalez-Sanchez, J.** and Chavez-Echeagaray, M.E. (2009). How to Code for Accelerometer and Core Location? Desert Code-Camp at Devry University. Phoenix, AZ, USA. November 2009.
- Gonzalez-Sanchez, J.** and Chavez-Echeagaray, M.E. (2009). Programming with iPhone SDK. ACM International Conference on Object-Oriented Programming Systems Languages and Applications (OOPSLA) 2009. Orlando, FL, USA. October 2009.
- Gonzalez-Sanchez, J.** and Chavez-Echeagaray, M.E. (2008). iPhone SDK a Kick Start. ACM International Conference on Object-Oriented Programming Systems Languages and Applications (OOPSLA) 2008. Nashville, TN, USA. October 2008.
- Gonzalez-Sanchez, J.** and Chavez-Echeagaray, M.E. (2008). Programming Lego® Mindstorms with Java. ACM International Conference on Object-Oriented Programming Systems Languages and Applications (OOPSLA) 2008. Nashville, TN, USA. October 2008.
- Gonzalez-Sanchez, J.** (2008). Design Patterns. Continuing Education and Knowledge Updating for Professionals and Companies. Software Industry Excellence Center (SIE CENTER) at Tecnológico de Monterrey, Guadalajara campus. Guadalajara, JAL, Mexico. December 2008.
- Gonzalez-Sanchez, J.** (2008). Applying Rational Unified Process (RUP) and Software Design Patterns in CMMi Technical Solution. International Conference of Software Engineering and Applications (CIISA) 2008. Guadalajara, JAL, Mexico. September 2008.

- Gonzalez-Sanchez, J.** (2007). Software Architecture and Design Patterns for CMMi Technical Solution. Software Industry Excellence Center (SIE CENTER) at Tecnológico de Monterrey, Guadalajara campus. Guadalajara, JAL, Mexico. December 2007.
- Gonzalez-Sanchez, J.** and Chavez-Echeagaray M.E. (2007). Programming Lego® NXT Robots with Java Lejos API. 9th International Conference on Computer Systems Engineering. Tecnológico de Monterrey, Guadalajara campus, JAL, Mexico. October 2007.
- Gonzalez-Sanchez, J.** and Chavez-Echeagaray M.E. (2006). Programming Lego® RCX Robots with Java Lejos API. 8th International Conference on Computer Systems Engineering. Tecnológico de Monterrey, Guadalajara campus, JAL, Mexico. October 2006.
- Gonzalez-Sanchez, J.** (2006). Software Design Patterns and Anti-Patterns. 8th International Conference on Computer Systems Engineering. Tecnológico de Monterrey, Guadalajara campus, JAL, Mexico. October 2006.
- Gonzalez-Sanchez, J.** (2006). Unified Modeling Language (UML) and the Unified Process (UP). Continuing education and knowledge updating for professionals and companies. Software Industry Excellence Center (SIE CENTER) at Tecnológico de Monterrey, Guadalajara campus, Guadalajara, JAL, Mexico. January 2006.
- Gonzalez-Sanchez, J.** (2005, 2006). Web Application Development with PHP and MySQL Databases. Information Technology Week. Instituto Tecnológico de Zacatecas Sur (ITZAS), Tlaltenango, Zacatecas, Mexico. November 2005 and March 2006.
- Gonzalez-Sanchez, J.** (2005). Apache Web Server. 1st Conference on Information Technology. Universidad de Occidente, Guamuchil campus, Sinaloa, Mexico. November 2005.
- Gonzalez-Sanchez, J.** (2005, 2006, 2007). J2ME: Java for Mobile Devices. 7th, 8th, and 9th International Conference on Computer Systems Engineering. Tecnológico de Monterrey, Guadalajara campus. Guadalajara, JAL, Mexico. October 2005, 2006, 2007.
- Gonzalez-Sanchez, J.** (2005). Unified Modeling Language. Continuing education and knowledge updating for professionals and companies. Tecnológico de Monterrey, Guadalajara campus. Guadalajara, JAL, Mexico. May 2005.
- Gonzalez-Sanchez, J.** (2005). J2ME: Java for Mobile Devices. 4th International Symposium on Computer Systems Engineering. Tecnológico de Monterrey, Mazatlan campus. Mazatlan, SIN, Mexico. March 2005.
- Gonzalez-Sanchez, J.** (2004). Object Oriented Programming with Java. 6th International Conference on Computer Systems Engineering. Tecnológico de Monterrey, Guadalajara campus, Guadalajara, JAL, Mexico. October 2004.
- Gonzalez-Sanchez, J.** (2004). Web Application Development with PHP and MySQL Databases. Tecnológico de Monterrey, Hidalgo campus, Hidalgo, Mexico. November 2004.
- Gonzalez-Sanchez, J.** (2004). Apache Web Server. Information Technology Week. Universidad de Guadalajara, Los Altos campus. Tepatitlan, JAL, Mexico. May 2004.
- Gonzalez-Sanchez, J.** (2003, 2004, 2005). Apache Web Server. 5th, 6th, and 7th International Conference on Computer Systems Engineering. Tecnológico de Monterrey, Guadalajara campus. Guadalajara, JAL, Mexico. October 2003, 2004, and 2005.
- Gonzalez-Sanchez, J.** (2003). Web Application Development with PHP and MySQL Databases. Universidad de Guadalajara, Valles campus. Ameca, JAL, Mexico. August 2003.
- Gonzalez-Sanchez, J.** (several times between 1997 and 2004). Object Oriented Programming with C++, Programming with C, HTML, Programming Fundamentals, Programming Graphics Interfaces with Motif, CGI Programming with TCL, Fortran 90, and Internet for Users. High Performance Computer Center of Universidad de Guadalajara.

Short Talks

- VanLehn, K., Burleson, W., Chavez-Echeagaray, M. E., Christopherson, R., **Gonzalez-Sanchez, J.**, Hidalgo-Pontet, Y., Muldner, K., and Zhang, L. (2012). The Level Up Procedure: How to Measure Learning Gains without Pre- and Post-testing. Companion of the 42nd Conference of Research and Development by Tecnologico de Monterrey. Monterrey, NL, Mexico. January 2012. Page 233. ISBN: 978-607-501-073-1.
- VanLehn, K., Burleson, W., Chavez-Echeagaray, M.E., Christopherson, R., **Gonzalez-Sanchez, J.**, Hidalgo-Pontet, Y., and Zhang, L. (2012). The Affective Meta-Tutoring Project: How to Motivate Students to Use Effective Meta-cognitive Strategies. Companion of the 42nd Conference of Research and Development by Tecnologico de Monterrey. Monterrey, NL, Mexico. January 2012. Page 232. ISBN: 978-607-501-073-1.
- Gonzalez-Sanchez, J.**, Christopherson, R., Chavez-Echeagaray, M.E., Atkinson, R., and Burleson, W. (2012). How to Do Multimodal Detection of Affective States? Companion of the 42nd Conference of Research and Development by Tecnologico de Monterrey. Monterrey, NL, Mexico. January 2012. Page 219. ISBN: 978-607-501-073-1.
- Gonzalez-Sanchez, J.**, Chavez-Echeagaray, M.E., VanLehn, K., and Burleson, W. (2012). From Behavioral Description to a Pattern-Based Model for Intelligent Tutoring Systems. Companion of the 42nd Conference of Research and Development by Tecnologico de Monterrey. Monterrey, NL, Mexico. January 2012. Page 217. ISBN: 978-607-501-073-1.
- Gonzalez-Sanchez, J.**, Chavez-Echeagaray, M.E., Atkinson, R., and Burleson, W. (2012). Affective Computing Meets Design Patterns: A Pattern-Based Model of a Multimodal Emotion Recognition Framework. Companion of the 42nd Conference of Research and Development by Tecnologico de Monterrey. Monterrey, NL, Mexico. January 2012. Page 205. ISBN: 978-607-501-073-1.
- Gonzalez-Sanchez, J.**, Chavez-Echeagaray, M.E., Atkinson, R., and Burleson, W. (2012). ABE: An Agent-Based Software Architecture for a Multimodal Emotion Recognition Framework. Companion of the 42nd Conference of Research and Development by Tecnologico de Monterrey. Monterrey, NL, Mexico. January 2012. Page 204. ISBN: 978-607-501-073-1.
- Christopherson, R., **Gonzalez-Sanchez, J.**, Chavez-Echeagaray, M.E., and Atkinson, R. (2011). Covert and Overt Measures of Engagement within an Educational Multimedia Environment. Games for Change 8th Annual Festival, New York City, June 20-22, 2011.
- Gibson, D., Chavez-Echeagaray, M.E., **Gonzalez-Sanchez, J.**, Christopherson, R., and Atkinson, R. (2011). Emotional Impacts of Digital Media. Virtual Worlds Best Practices in Education Conference (VWBPE). March 2011.
- Atkinson, R., Denham, A., **Gonzalez-Sanchez, J.**, Christopherson, R., and Chavez-Echeagaray, M.E. (2011). Mobile Learning: Using Mobile Devices to Deliver Interactive Multimedia Instruction. Companion of the 41st Conference of Research and Development by Tecnologico de Monterrey. Monterrey, NL, Mexico. January 19-21, 2011. Page 501. ISBN: 978-607-501-033-5.
- Atkinson, R., Christopherson, R., **Gonzalez-Sanchez, J.**, and Chavez-Echeagaray, M.E. (2011). Automated Detection of Affective States to Measure Learning Experience. Companion of the 41st Conference of Research and Development by Tecnologico de Monterrey. Monterrey, NL, Mexico. January 19-21, 2011. Page 497. ISBN: 978-607-501-033-5.
- Marquez-Azua, B., Ledesma-Tello, I., and **Gonzalez-Sanchez, J.** (2011). Three-Dimensional Visualization of the Tectonic Movement over Mexico by Means of the Global Positioning System (GPS) Measurements. Companion of the 41st Conference of Research and Development by Tecnologico de Monterrey. Monterrey, NL, Mexico. January 19-21, 2011. Page 174. ISBN: 978-607-501-033-5.
- Gonzalez-Sanchez, J.**, and Chavez-Echeagaray, M.E. (2010). Affective Computing: Comparing Computer-Face-Based Emotion Recognition with Human Emotion Perception. Latino Graduate Students Alliance (LGSA) Interdisciplinary Symposium, Tempe, AZ, USA. March 2010.
- Gonzalez-Sanchez, J.**, and Chavez-Echeagaray, M.E. (2010). Affective Computing: Affective Meta Tutoring System. Latino Graduate Students Alliance (LGSA) Interdisciplinary Symposium, Tempe, AZ, USA. March 2010.

- VanLehn, K., Burlison, W., Hand, P., Muldner, K., **Gonzalez-Sanchez, J.**, Chavez-Echeagaray, M.E., and Christopherson, R. (2010). Affective Meta Tutoring System. Companion of the 40th Conference of Research and Development by Tecnologico de Monterrey. Monterrey, NL, Mexico, January 20-22, 2010. Page 595. ISBN: 978-607-501-0007.
- Burlison, W., Muldner, K., **Gonzalez-Sanchez, J.**, Chavez-Echeagaray, M.E., Lu, P., and Freed, N. (2010). Comparing computer-face-based emotion recognition with human emotion perception. Companion of the 40th Conference of Research and Development by Tecnologico de Monterrey. Monterrey, NL, Mexico, January 20-22, 2010. Page 594. ISBN: 978-607-501-0007.
- Calzada-Delgado, S., and **Gonzalez-Sanchez, J.** (2008). System for Management Information of Archaeological Sites in Sayula River Basin. Companion of the 38th Conference of Research and Development by Tecnologico de Monterrey. Monterrey, NL, Mexico, January 23-25, 2008. Page 359. ISBN: 968-891-124-0.
- Gonzalez-Sanchez, J.** and Chavez-Echeagaray, M.E. (2008). Introducing computer science with Project Hoshimi. Companion of the 38th Conference of Research and Development by Tecnologico de Monterrey. Monterrey, NL, Mexico, January 23-25, 2008. Page 191. ISBN: 968-891-124-0.
- Gonzalez-Sanchez, J.**, and Chavez-Echeagaray, M.E. (2008). Eclipse plug-in to aid generating OpenMP and Pthreads code Through Visual Programming. Companion of the 38th Conference of Research and Development by Tecnologico de Monterrey. Monterrey, NL, Mexico. January 23-25, 2008. Page 184. ISBN: 968-891-124-0.
- Hidalgo-San Martin, A. and **Gonzalez-Sanchez, J.** (2006). Virtual Health Library Mexico on the Internet 2. Virtual Day in Health Sciences of the University Corporation for Development of Internet (CUDI). Mexico. September 2006.
- Marquez-Azua, B., Ledesma-Tello, I. and **Gonzalez-Sanchez, J.** (2006). Tri-dimensional Visualization of the Tectonic Displacement of Mexico. Spring Meeting 2006 of the University Corporation for Development of Internet (CUDI). Oaxaca, OAX, Mexico. April 2006.

CERTIFICATES, SPECIALIZED TRAINING, AND CONTINUING EDUCATION

Certificates

- Preparing Future Faculty: Participatory Phase. Arizona State University. May 2011.
- Preparing Future Faculty: Exploration Phase. Arizona State University. May 2010.
- Certificate for Completion of Program to Develop Teaching Abilities. Tecnologico de Monterrey, Guadalajara campus. February 2006.
- Certified in Case Method Teaching. Tecnologico de Monterrey, Guadalajara campus. October 2005.
- Certified in Collaborative Learning. Tecnologico de Monterrey, Guadalajara campus. October 2005.
- Certified in Project Oriented Learning (POL). Tecnologico de Monterrey, Guadalajara campus. October 2003.
- Certified Instructor in Object-Oriented Programming and Design. Carnegie Mellon University, Carnegie Technology Education. September 2003.
- Certified Instructor in Introduction to Information Systems. Carnegie Mellon University, Carnegie Technology Education. June 2002.

Specialized Training

- Database Design with Rational Rose. IBM Education Center, Mexico City, Mexico. June 2006.
- Mastering Object Oriented Analysis and Design with UML. IBM Education Center, Mexico City, Mexico. June 2006.
- Mastering Requirements Management with Use Cases. IBM Education Center, Mexico City, Mexico. June 2006.
- Multicore Programming. Intel Education, Santa Clara, CA, USA. May 2005.
- Object Oriented Analysis and Design Using UML. Oracle de Mexico, Mexico City, Mexico. September 2005.
- Enterprise Java Beans Programming. SUN Microsystems Mexico, Mexico City, Mexico. August 2003.
- Web Component Development Using Java. SUN Microsystems Mexico, Mexico City, Mexico. August 2003.
- Applications Development with XML. Oracle de Mexico, Mexico City, Mexico. March 2003.
- Capability Maturity Model® Integration. European Software Institute, JAL, Mexico. March 2003.
- Oracle Java Business Components. Oracle de Mexico, Mexico City, Mexico. August 2002.
- Parallel Programming. Silicon Graphics Mexico, Mexico City, Mexico. January 1997.

- Applications and Services for Internet. Universidad de Guadalajara, JAL, Mexico. October 1996.
- UNIX Operating System Management. Universidad de Guadalajara, JAL, Mexico. July 1996.
- Oracle Databases. Universidad de Guadalajara, JAL, Mexico. July 1996.

Continuing Education

- Seminar on Ethics. Tecnológico de Monterrey, Guadalajara campus, Guadalajara, JAL, Mexico. December 2008.
- Seminar on Virtual Health Libraries, Semana de Puertas Abiertas - PAHO-BIREME, Sao Paulo, Brasil. June 2002.

SOFTWARE COPYRIGHT REGISTRATIONS

- 2011 Technological Platform to Publish Digital Collections (original name in Spanish: Plataforma Tecnológica para Publicación de Acervos Digitales), Copyright National Institute, Mexico. October 11, 2011. Number: 03-2011-091312324000-01.
- 2011 Technological Platform for Virtual Conferences (original name in Spanish: Plataforma Tecnológica para Realizar Congresos Virtuales), Copyright National Institute, Mexico. October 11, 2011. Number: 03-2011-091312303700-01.

GRANTS AND SPONSORSHIP

National Science Foundation. Travel grant award for

- International Conference on Software Engineering (ICSE), May 2015. Austin, TX, USA.

Arizona State University, Graduate and Professional Student Association (GPSA). **Travel Grant** award for

- International Conference on Intelligent Tutoring Systems (ITS), June 2013. Honolulu, HI, USA.
- IEEE International Conference on Software Engineering (ICSE), May 2013. San Francisco, CA, USA.
- IEEE Conference on Software Architecture (WICSA), June 2011. Boulder, CO, USA.
- ACM International Conference on Systems Programs Languages and Applications: Software for Humanity (SPLASH), October 2010. Reno, NV, USA.
- International Conference on Tutoring Systems (ITS), June 2010. Pittsburgh, PA, USA.
- Research and Development Conference of Tecnológico de Monterrey (CIDTec), January 2009. Monterrey, NL, Mexico.

Arizona State University, Graduate College, Preparing Future Faculty Program (PFF). **Travel Grant** award for

- European Conference on Pattern Languages of Programs (EuroPLoP), July 2011. Irsee, Bavaria, Germany.

Arizona State University, Ira A. Fulton College of Engineering. **Travel Grant** award for

- European Conference on Pattern Languages of Programs (EuroPLoP), July 2011. Irsee, Bavaria, Germany.
- IEEE International Conference on Advanced Learning Technologies (ICALT), July 2011. Athens, GA, USA.

SERVICE

Program and Reviewer Committee

- 2016-2017 3rd and 4th IEEE International Workshop on User Centered Design and Adaptive Systems (UCDAS). In conjunction with the 40th and 41th IEEE Computer Society International Conference on Computers, Software & Applications (COMPSAC). USA 2016, Italy 2017.
- 2017, 2013 Latin American Mini Conference on Pattern Languages of Programming (MiniPLoP). Brazil. September 2013 and Buenos Aires, Argentina, 2017
- 2016-2014 Workshop on Intelligent Learning Environments (WILE), in conjunction with the Mexican International Conference on Artificial Intelligence (MICA). Mexico. November 2014, 2015, 2016.

- 2015 1st IEEE International Conference on Computer and Computational Sciences (ICCCS). Greater Noida, India, January 2015.
- 2014 10th Latin American Conference on Pattern Languages of Programs (SugarLoaf PLoP). Sao Paulo, Brazil. November 2014.
- 2012 1st International IBM Cloud Academy Conference (ICACON). IBM Research Triangle Park, NC, USA. April 2012.
- 2008 International Conference of Software Engineering and Applications (CIISA). Organized by Software Industry Excellence Center of Tecnologico de Monterrey (a partner organization of Carnegie Mellon Software Engineering Institute). Guadalajara, JAL, Mexico. September 2008.
- 2007 International Conference of Software Engineering and Applications (CIISA). Organized by Software Industry Excellence Center of Tecnologico de Monterrey (a partner organization of Carnegie Mellon Software Engineering Institute). Guadalajara, JAL, Mexico. September 2007
- 2002 1st Virtual Conference on Youth Health. Organized by the Pan American Health Organization, Mexican Social Security Institute and Universidad de Guadalajara. October 2002.

Organizing Committee

- 2008 Microsoft Academic Day on Windows Operating System. Tecnologico de Monterrey, Guadalajara campus. January 2008.
- 2007 Intel Seminar on Multicore Programming. Tecnologico de Monterrey, Guadalajara campus. May 2007.
- 2007 IBM Engineering Week. Tecnologico de Monterrey, Guadalajara campus. February 2007.
- 2007 Microsoft Seminar “Aldeanos del siglo XXI.” Tecnologico de Monterrey, Guadalajara campus. January 2007.

Reviewer

- 2017 Elsevier Entertainment Computing (EntComp). Paper.
- 2014 IEEE Journal of Biomedical and Health Informatics (JBHI). Paper.
- 2014, 2011 International Conference on Computer and Communication Technology (ICCCT). Papers.
- 2013 Conference on Pattern Languages of Programs (PLoP). Papers.
- 2011 International Conference on Affective Computing and Intelligent Interaction (ACII). Posters.
- 2008 ACM International Conference on Object-Oriented Programming Systems Languages and Applications (OOPSLA) Educational Symposium. Papers.

Evaluator

- 2011–2013 Jump-Start Research Grant Competition. Evaluator for the Graduate and Professional Student Association (GPSA) at Arizona State University. Reviewed proposals in the area of computer sciences and computer engineering.
- 2012 Teaching Excellence Award. Evaluator for the Graduate and Professional Student Association (GPSA) at Arizona State University.
- 2012 Travel Grant Competition. Evaluator for the Graduate and Professional Student Association (GPSA) at Arizona State University.

2009–2012 Research Grant Competition. Evaluator for the Graduate and Professional Student Association (GPSA) at Arizona State University. Reviewed proposals in the area of computer sciences and computer engineering.

Jury Member

2010 Judge at Arizona Science and Engineering Fair. Phoenix, AZ, USA. March 2010.

2007, 2006 Jury member of the Annual Thesis Contest (category of information technology) organized by Guadalajara Chamber of Commerce. Guadalajara, JAL, Mexico. 2006 and 2007.

2004 Jury member of the Master's in Applied Computing Thesis Contest organized by Universidad de Guadalajara, La Cienega campus. Ocotlan, JAL, Mexico. March 2004.

Curriculum Design

2010 Curriculum design of the course “From storyboard to code: programing with Alice” (Introductory course for 4th graders at elementary school). Office of Youth Preparation on the Programs for Talented Youth, Arizona State University. Tempe, AZ, USA. February–March 2010.

2005 Curriculum design of the online course “Object-Oriented Programming” for the online BS of Computer Systems Engineering. Universidad de Guadalajara. Guadalajara, JAL, Mexico. January–July 2005.

2004 Curriculum design of the online courses “Compilers” (8th semester of BS Computer Systems Engineering) using POL (Project Oriented Learning) and “Data structures” (3rd semester of BS Computer Systems Engeniering). Tecnologico de Monterrey, Guadalajara campus. Guadalajara, JAL, Mexico. August 2003–July 2004.

Volunteer

2018-2017 Student Activities Co-ordinator. IEEE Phoenix section.

2010 Student Volunteer at 10th International Conference on Intelligent Tutor Systems. Pittsburgh, PA, USA. June 2010.

1999–1998 Information Technology Staff. Association Internationale des Etudiants en Sciences Economiques et Commerciales (AIESEC). National Committee Mexico.

LANGUAGES

- Spanish: native speaker
- English: fluent

PROFESSIONAL AFFILIATIONS

- Association for Computing Machinery (ACM) – Senior Member
- Institute of Electrical and Electronics Engineers (IEEE), Computer Society – Senior Member
- The Honor Society of Phi Kappa Phi (PKP) – Member.