

# Paúl E. Estrada Martínez

## M.Sc. in Computer Science

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## About me

I am a software designer, engineer and researcher with a background on human-computer interaction, computer science and software engineering. With about 10 years of experience in the Software and IT industry, I have been doing research and implementing solutions to problems through interactive systems, web and mobile applications.

## Education

<b>Master of Science in Computer Science</b>	2009-2011	CICESE Research Centre. Mexico. Scholarship awarded by CONACYT (Mexican Council of Science and Technology). Ensenada, B. C.
<b>Bachelor's Degree in Computer Systems</b>	2002-2006	Universidad de Occidente. Los Mochis, Sinaloa.

## Interests and skills

Research	Human-Computer Interaction, Ubiquitous computing, Internet of Things			
Software development and engineering	<b>Basic</b> C++ PHP	<b>Intermediate</b> Meteor Framework MongoDB ASP MVC .NET C#	<b>Advanced</b> Ruby Ruby on Rails HTML-CSS JavaScript Git, SQL	<b>Expert</b> Android Java

## Languages

Spanish	Native language
English (Professional proficiency)	TOEFL iBT: Score 91 – High (Reading: 22, Listening: 23, Speaking: 24, Writing: 22) Certificate of English Comprehension. Languages Study Centre. Autonomous University of Sinaloa (CEI UAS). Los Mochis, Sinaloa. 2001-2005.
Japanese (Beginner proficiency)	Japanese First Course. Languages Study Centre. Autonomous University of Baja California (UABC). Ensenada, BC, Mexico. 2011.

## Certifications

- Android DW Mobile Certified Expert. 2015
- Android DW Mobile Certified Developer. 2015.
- Cisco Networking CCNA. University of Occidente. Los Mochis, Sinaloa. 2004-2005

## Course diplomas

- Mobile Apps Programming. Google Activate. Universidad Complutense de Madrid. 2015.
- Web Development Part 1. Google Activate. IEI Universidad de Alicante. 2015
- Technical diploma of Computers and Networking. Escuela de Computacion Los Mochis (ECLM). Los Mochis, Sin. Mexico. 1998-2000.

## Publications

- Estrada-Martínez, P. E y García-Macías, J. A. 2013. "Semantic Interactions in the Internet of Things". International Journal of Ad Hoc and Ubiquitous Computing. Inderscience Publishers. Vol. 13, No. 3/4, pp. 167-175.
- Estrada-Martínez, P. E., Álvarez-Lozano, J., García-Macías, J. A. y Favela, J. 2011. "The Sentient Visor: Towards a Browser for the Internet of Things". En 5th International Symposium of Ubiquitous Computing and Ambient Intelligence (UCAI). Riviera Maya, México. December 2011. ISBN: 978-84-694-9677-0
- García-Macías, J. A., Álvarez-Lozano, J., Estrada-Martínez, P. y Avilés-López, E. 2011. "Browsing the Internet of Things with Sentient Visors". IEEE Computer, vol. 44, no. 5, pp. 46-52. May 2011.
- Estrada-Martínez, P. E., García-Macías, J. A. y Favela-Vara, J. 2010. "Visores Sensoriales para Navegar en Entornos Físicos Aumentados". En Memorias del 3er Congreso Internacional en Ciencias Computacionales (CiComp 2010). Ensenada, México (3 al 5 de Noviembre 2010). 114-118 p. ISBN 978-607-7753-81-0.

## Workshops and Talks

- Workshop: Android Development – Basic Level. 2016. Universidad Tecnológica de Manzanillo. June 2016.
- Workshop: Android Development. CoCoWorking – Espacio Colimense de Colaboración. July 2015.
- Talk: Android Applications with Ruby. 2013. Google Developers Group Tijuana. Online: <http://youtu.be/tAQYwssnaY>
- Talk: Internet of Things: A New World for Software. Festival Software Libre Vallarta (FSL). Puerto Vallarta, Jalisco. November 2012.
- Workshop: Augmented Reality Application Development. Vertice Congress 2011. Autonomous University of Baja California (UABC). Ensenada, B.C. Mexico. April 13, 2011.
- Talk: Visores Sensoriales para Navegar en Entornos Fisicos Aumentados. 3er Congreso Internacional en Ciencias Computacionales (CiComp 2010). Ensenada, B.C. Mexico. 3 al 5 de November 2010.
- Exhibition: Mobile and Ubiquitous Computing Applications. CICESE Science Exhibition 2010. CICESE Research Centre. Ensenada, B.C., Mexico. October 2010.

## Professional experience

Work period	Company	Roles
<b>2014 – Current</b>	<b>Universidad Tecnologica de Manzanillo</b> <a href="http://www.utem.edu.mx">www.utem.edu.mx</a>	<b>R&amp;D Senior Software Engineer / Research Professor</b>
<b>Achievements/Activities:</b>		
-Develop interactive systems for research projects (Web and mobile applications)		
-Lecturer in web and mobile software development. Research: HCI, ubiquitous computing and interactive systems.		
-Perform code inspections, pair programming and provide feedback to students working in research projects.		
-Conduct research, data analysis and user-centered design to implement new interactive systems.		
-Responsible for leading small teams of programmers in Industry research projects funded by CONACYT-PEI.		
-Provide architecture / design decisions to fix performance and memory consumption issues in projects.		
-UX / Usability Advisor, performing heuristic evaluations and usability feedback.		
<b>Tools:</b> Android SDK, Android Studio, Java, Spark Java, Ruby on Rails, Meteor Framework, MongoDB, JavaScript, JQuery, PHP, MySQL, Git, Github, GitLab		
<b>2013 – 2014</b>	<b>Scio Consulting - <a href="http://www.scio.com.mx">www.scio.com.mx</a></b> <b>&amp; Instituto Tecnologico de Morelia</b>	<b>Team Lead / Application developer Professor</b>
<b>Achievements/Activities</b>		
-Member of the Development Excellence Committee, participating in meetings to analyze and implement strategies to encourage engineer development and knowledge sharing such as technical talks, open source initiatives, mentoring developers, kata exercises.		
-Collaborated in the analysis, design, development and maintenance of a web-based application (ASPMVC .NET) that helps U.S. citizens to obtain a GED certification by matching tutors, planning preparation material and take examination tests. Performing back-end tasks (SQL views and functions, business logic with C#, fixing bottlenecks) and front-end tasks (loading / rendering data with AJAX, creating Widgets with KendoUI and Javascript)		
-Technical leader in a Ruby on Rails/Mobile project for a Start-up based in the U.S. Providing technical guidance in software refactoring, design guidelines, mentoring and pair-programming. The application is a social network that retrieves business data using the Foursquare API and provide matches for a user based on: location, business type and friend's favorite places.		
-Technical interviews for candidate engineers with focus on Ruby on Rails and Web development. Helping HR department in the design of a Ruby engineer career path.		
-Responsible for mentoring 2 developers and 1 intern developer. Planning short-term learning goals and side-projects to help them get evaluated towards a promotion.		
-Teaching Web Applications, Web Technologies and HCI in Instituto Tecnologico de Morelia.		
<b>Tools:</b> Ruby on Rails, Heroku, Cordova-PhoneGap, MongoDB, Foursquare API, AngularJS, Visual Studio, ASP MVC .NET, SQL Server, JavaScript, JQuery, KendoUI, Telerik Fiddler, Git		
<b>2012 – 2013</b>	<b>Crowd Interactive - <a href="http://www.crowdint.com">www.crowdint.com</a></b>	<b>Team Lead / Software engineer</b>
<b>Achievements/Activities</b>		
-Member of the Development Committee, participating in meetings to analyze and implement strategies to better select new engineers from a pool of intern developers, designing technical questions by profile.		
-Technical leader in Android development, helping to create the first Android development team in the company and develop the first Android version of the in-house application “Retrospectus”		

- Mentoring junior developers by doing pair-programming and giving technical talks
- Full-stack Software Engineer in the project "Retrospectus Web", implementing user stories with Ruby on Rails involving back-end and front-end functionality, creating unit-tests and acceptance tests.
- Full-stack Software Engineer in two short-term Ruby on Rails projects with U.S. clients
- Author of technical articles and open source software. A list of past articles can be found in: <http://blog.crowdint.com/author/38-paul-estrada>
- Published open source software: EmojiMenu, Android-TravisCI integration example.

**Tools:** Ruby on Rails, Backbonejs, Rubymine, Android SDK, Eclipse, Android Studio, Git, Github, Heroku, Selenium, Capybara, Coffeescript

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**2012** **ATG Mensajeria – [www.atgmensajeria.com.mx](http://www.atgmensajeria.com.mx)** **Systems supervisor**

**Achievements/Activities**

- Developed web services, middleware and reporting systems (using PHP and Java) for a legacy system originally implemented in Visual FoxPro and MySQL.
- IT Management in zones: Baja California, Sonora, Sinaloa, Jalisco (Zapopan) in Mexico. Provided technical support services, implemented remote support processes and logistics, helping the company in reducing costs and time involved in fixing computers, printers and maintenance of other hardware equipment.
- Performed business process re-engineering of logistics and package control processes, analyzing and modelling processes in Sinaloa branch offices.

**Tools:** Java, MySQL, JasperReports, NetBeans, PHP, HTML, CSS, JQuery, Rich charts, Process diagrams.

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**2009-2011** **CICESE - [www.cicese.edu.mx](http://www.cicese.edu.mx)** **Full-Time Research student**

**Achievements/Activities**

- Research and development of network systems and software prototypes for Android devices.
- Published results in International conferences and journals (IEEE Computer, Elsevier). See list in: <http://www.paulestradam.com/publications/>
- Helped in re-engineering the CICESE's library book services through a Business process analysis and implementation of a Web Application.
- Developed a search engine for medications using Apache Lucene.

**Tools:** Java, MySQL, PHP, HTML, CSS, JQuery, Processing, Android, Eclipse, CodeIgniter, UML, Restlet Framework, RDF, SPARQL, Jena, Pellet reasoner, SWRL, Apache Lucene.

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**2006-2009** **Imagensoft - [www.imagensoft.com.mx](http://www.imagensoft.com.mx)** **Systems Advisor**

**Achievements/Activities**

- Consultancy for several companies involving IT management activities, support and software training, with a focus on hotels, restaurants, agricultural and radio stations companies.
- Helping clients to install and configure the Imagensoft ERP software, providing support in accounting, salary calculations based on Mexican employment laws and business processes.
- Received the VIP Advisor Award consisting of a monthly income bonus for my high quality and professional service as reported by clients.

**Tools:** IbExpert, Firebird databases, SQL scripts, HTML, CSS, JavaScript

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