

Jorge Saldivar

jorgesaldivar@gmail.com
www.jorgesaldivargalli.com

Ph.D. candidate at the Department of Information Engineering and Computer Science, University of Trento (Italy) and assistant researcher at the Department of Electronic and Informatics of the Catholic University (Paraguay), where I participate in the investigation and development of tools that empower citizens in public decision-making and innovation processes. My research interests include crowdsourcing, collective intelligence, and civic engagement.

CURRENT POSITION *Assistant Researcher*

Department of Electronic and Informatics, Catholic University of Asunción, Paraguay.

- Research, modelling, design and implementation of IT applications and services that support and facilitate the participation of Paraguayan citizens in innovating public services.

EDUCATION

PhD candidate, Information and Communication Technology,
ICT Doctoral School, University of Trento, Italy (expected, April 2016).

Thesis: *Integrating Platform for Eliciting Ideas with Social Network: An approach to empower civic engagement for public sector innovation.*

Bachelor of Science (B.Sc.), Informatics Engineering,
Catholic University "Nuestra Señora de la Asunción", Paraguay, 2010.

Thesis: *Improving cooperative and competitive behaviors on visually impaired children.*

COLLABORATION IN RESEARCH PROJECTS

Participa.PY: Developing ICT solutions to empower citizens to collaborate in the co-creation of social impact solutions and public sector innovations. (Technical Leader)

Civic CrowdAnalytics: Designing machine learning-based tools to automatically analyze and synthesize crowdsourced civic input.

The California Report Card: Implementing mobile-based solutions to structure and streamline communication from the California residents to their elected officials.

The Finnish Experiment: Analyzing participation patterns and effect of moderation actions in crowdsourced policy-making processes.

Agora 2.0: Integrating public displays and open innovation platforms to create a synchronized on-line and on-site system oriented to promote civic participation in discussions about public interest issues.

RESEARCH EXPERIENCE

Visiting Researcher July 2014 - October 2014
Center for Information Technology Research in Interest of the Society (CITRIS), University of California, Berkeley, California, USA.

- Modeled, designed, and implemented a Twitter-based extension for the platform CAFE used in the project California Report Card to engage citizens of California in the collective assessment of timely issues.

Visiting Researcher October 2013 - December 2013
Information Analysis Division, Hewlett-Packard (HP) Labs, Palo Alto, California, USA.

- Designed and implemented an web-based interactive analytic tool for conducting real-time visualization of query execution.

- Developed a recommendation plugin that annotated the query tree with the most interesting results of its execution analysis, which may indicate execution problems and recommend design solutions for problem queries.

Assistant Researcher

November 2011 - October 2014

EU-funded BPM4People research project and Trento-province-funded Ianus project.

- Researched on methodologies, techniques, and approaches to construct tools for modeling and deploying of business processes that will be executed collaboratively by people in social networks.
- Modeled, designed and implemented a spreadsheet-based tool for enabling business process (BP) analysts to conduct BP testing tasks, such as writing metrics and assertions, running tests, and designing test report.
- Designed and executed usability studies.

OTHER PROFESSIONAL EXPERIENCES

Software Developer/Head of Educational Technology
NGO Paraguay Educa.

January 2010 - July 2011

- Developed and maintenance of Sugar OS apps (Labyrinth, Poll, TamTam).
- Designed, modeled, implemented and maintained the educational software stack (learning platforms, online libraries, student tracking systems) used by teachers and students in classrooms during the implementation of the project One Laptop per Child (OLPC).

Software Developer/Technology Manager

March 2008 - December 2008

OLPC pilot project, Catholic University "Nuestra Señora de la Asunción"

- Mounted and maintained of Unix servers. Set up and configured OLPC XO laptops.
- Developed and customized educational applications for Sugar OS.

Software Developer

March 2007 - December 2007

Azucarera Iturbe (Sugar Industry)

- Developed, tested and maintained a web-based (ruby on rails) business management system (billing, stocking, accounting, freighting, human resources)

TEACHING AND TUTORING ACTIVITIES

Teaching Assistant

February 2015 - September 2015

University of Trento, Italy.

- Teaching Assistant for the undergraduate course on Web Programming Technologies. The course was focuses on J2EE web technologies (e.g., Servlet, JSP, JSTL, JavaBean) and the work involved mainly the confection of online teaching materials and the preparation of tests.

Master Thesis Co-tutor

November 2014 - March 2015

University of Trento, Italy.

- Co-tutor of the Master Thesis: Analyzing and Visualizing citizen opinions collected from social networks presented by Shahadat Chowdhury to obtain the Master in Computer Science at the University of Trento, Italy.

DATA ANALYTICS PROJECTS

Collective and individual behavior in online Idea Management communities: Analysis of common patterns of behavior that emerge in online communities by using unsupervised learning algorithms.

Motivation factors and participation in crowdsourcing for policy-making processes: Analysis on how collective intelligence impacts processes of policymaking processes using descri.

Social sharing practices in open innovation: Study on the effectiveness of current social sharing practices in the context of open innovation processes for civic participation.

COMPUTER AND DATA ANALYSIS SKILLS

- Languages and Frameworks: Python, Java, Javascript, PHP, SQL, Ruby, C, C++, Bash, C#, Ruby on Rails, Yii, ExtJS, Qooxdoo, Drupal, Play, JQuery, Bootstrap, Django.
- Analysis Methods: Descriptive statistics, correlation analysis, inferential statistics.
- Machine Learning: Regression, classification, unsupervised learning and recommendation modeling.
- Data analytic and visualization tools: R, Azure ML, Kettle, Ggplot, D3, Jit.
- RESTful APIs: Twitter, Google Plus, Facebook, IdeaScale, Google Translator, Google Drive, Google URL shortener.

MOST RELEVANT PUBLICATIONS

- T. Aitamurto, H. Landemore, and Jorge Saldivar. *Unmasking the crowd: participants' motivation factors, expectations, and profile in a crowdsourced law reform*. Information, Communication & Society (2016): 1-22.
- J. Saldivar, C. Rodriguez, F. Daniel, F. Casati, and L. Cernuzzi. *On the (in) effectiveness of the share/tweet button: A study in the context of idea management for civic participation*. IEEE Internet Computing (2016).
- J. Saldivar, C. Vairetti, C. Rodriguez, F. Daniel, F. Casati, and R. Alarcon. *Analysis and improvement of business process models using spreadsheets*. Information Systems 57 (2016): 1-19.
- J. Saldivar, F. Daniel, F. Casati, L. Cernuzzi. *Idea Management in Social Networks: A Study of how to Tap into the Ideas of Facebook Communities*. In Proceedings of the 17th International Conference on Collaboration Technologies and Systems, 2016.
- J. Saldivar, M. Baez, C. Rodriguez, G. Convertino, Grzegorz Kowalik. *Idea Management in the Wild: An exploratory study of 166 online communities*. In Proceedings of the 17th International Conference on Collaboration Technologies and Systems, 2016.
- T. Aitamurto, K. Chen, A. Cherif, J. Saldivar, and L. Santana. *Civic CrowdAnalytics: making sense of crowdsourced civic input with big data tools*. In Proceedings of the 20th International Academic Mindtrek Conference, pp. 86-94. ACM, 2016. **(Best paper award)**
- T. Aitamurto, J. Saldivar, J. Salminen. *Self-selection in Crowdsourcing Democracy: A Bug or A Future?*. Crowdwork Workshop, ACM Conference on Supporting Groupwork, 2014.
- G. Schiavo, M. Milano, J. Saldivar, T. Nasir, M. Zancanaro, G. Convertino. *Agora2.0: Enhancing Civic Participation through a Public Display*. 6th International Conference on Communities and Technologies, 2013.