Via delle Cave 13, Trento, Italy jorgesaldivar@gmail.com

# Jorge Saldivar Galli

# Summary

P.h.D. student, informatics engineer and open-source supporter with experience as a software engineer, researcher and teaching assistant.

# Interests

Social Impact Technology, Democratic Innovation, Collective Intelligence, Open Innovation, Crowdsourcing, Software Engineering, and Social Network Analysis.

#### Education

#### 2011 - current

**PhD in Information and Communication Technology** - ICT Doctoral School, University of Trento, Italy.

# 2001 - 2006

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

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

# Research Experience

# March 2014 - Present

Researcher - The Finnish Experiment Project. A research project of the Committee for the Future in the Parliament of Finland.

Study on how collective intelligence, whether gathered by crowdsourcing and/or principles of open innovation, impacts processes of policy making.

# July 2014 - October 2014

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

Modeled, designed, and implemented a civic-participation tool for supporting the execution of public consultants, idea campaigns, and opinion polls

directly in hashtag-supported social networking sites, such as Twitter, Facebook, and Google Plus.

The tool was deployed as an extension of the platform CAFE used in the project California Report Card to engage citizens of California in the collective assessment of timely issues.

#### October 2013 - December 2013

Visiting Researcher - Hewlett-Packard Laboratories, Information Analysis Division, Palo Alto, California, USA.

Modeled, designed and implemented an web-based analytic tool for conducting real-time visualization of query execution. It converts a textual query execution plan to a tree visualization and as query executes, its tree visualization is annotated with live query execution events as for example, progress and live statistics for each query operator, overall query progress, etc.

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

# November 2011 - August 2013

Researcher - BPM4People Project (http://www.bpm4people.org): EU FP7 Research Project.

Researched about methodologies, techniques, and approaches to construct tools for modeling and deploying of business processes that will be executed collaboratively by people in social networks.

# November 2011 - March 2013

Researcher - Ianus Project: Trento-province-funded research project.

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.

## **Employment**

# January 2010 - July 2011

Head of Education Technology - NGO Paraguay Educa.

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).

Platforms: OLPC XO laptops, Sugar Operating System

Technologies: Python, Javascript.

Repository: http://git.sugarlabs.org/~jasg

# March 2008 - December 2008

Head of Technology - One Laptop per Child pilot project

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

Platforms: OLPC XO laptops, Sugar Operating System

Technologies: Python.

#### March 2007 - December 2007

Software Developer - Azucarera Iturbe: Sugar Industry

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

Platform: Web.

Technologies: Ruby on Rails, Qooxdoo.

#### **Teaching Experience**

# February 2015 - Present

Teaching Assistant - Department of Information Engineering and Computer Science, University of Trento, Italy.

Teaching Assistant in the Introduction to Web Programming class part of the Computer Science program.

# November 2014 - March 2015

Master Thesis Co-Supervisor - Department of Information Engineering and Computer Science, University of Trento, Italy.

Shahadat Chowdhury's Master Thesis Co-Supervisor. Title: Analyzing and Visualizing citizen opinions collected from social networks.

# May 2010 - July 2010

Lecturer - Polytechnic School, National University of Asuncion, Paraguay.

Tutor of a course about development for Sugar OS.

# February 2007 - July 2007

Teaching Assistant - Science and Technology School, Catholic University "Nuestra Señora de la Asunción"

Teaching Assistant in Programming Languages 1 part of the System Analysis program.

# August 2006 - December 2006

Teaching Assistant - Science and Technology School, Catholic University "Nuestra Señora de la Asunción"

Teaching Assistant in Programming Languages 1 part of the Information Technology Engineering program.

# Technical skills

- Languages: Java, Python, Javascript, R, PHP, SQL, Ruby, C, C++, Bash, C‡, Visual Basic.
- Frameworks: Ruby on Rails, Yii, ExtJS, Qooxdoo, Drupal, Play, JQuery, Bootstrap, Django.
- API: Twitter, Google Translator, Google Drive, Google URL shortener.
- Operating Systems: Linux, OS X, Windows.

#### **Awards and Honors**

Trento RISE association PhD on the move scholarship. Trento, Italy (2013).

University of Trento three-years PhD student fellowship. Trento, Italy (2011).

FC-UPM-IB scholarship for post-graduated studies at Universidad Politécnica de Madrid, Spain (2011).

Golden-medal for best graduated student of 2000 class at San Jose High-School, Asuncion, Paraguay (2000).

# Outcomes of research projects

- Participa: Civic participation platform support the execution of public consultants, idea campaigns, and opinion polls directly in hashtag-supported social networking sites, such as Twitter, Facebook, and Google Plus. (https://github.com/joausaga/participa)
- Agora 2.0: Civic participation oriented tool for polling citizens' opinions regarding local public interest issues in a synchronized on-line and on-site setting. (http://github.com/joausaga/agora20)
- Club de Othello: Educational tool for helping visually impaired children to learn spatio-temporal concepts as well as to allow them to cooperate and compete with their peers (http://activities.sugarlabs.org/en-US/ sugar/addon/4286)
- Spreadsheet-based BP testing: 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 (https://sites.google.com/site/ssbptester)

# Open-source contributions

- IdeaScaly: Python-based IdeaScale API client (https://github.com/jouasaga/ideascaly)
- Tweepy: Python-based client for accessing Twitter API (https://github.com/tweepy/tweepy)
- Poll: OLPC Sugar application for creating polls, collecting votes, and analyzing the community opinions. (http://activities.sugarlabs.org/ en-US/sugar/addon/4074)
- Labyrinth: OLPC Sugar mind-mapping application that supports text, images, and simple drawings. (http://activities.sugarlabs.org/en-US/sugar/addon/4078)
- TamTam: OLPC Sugar application that allows children in exploring music instruments. (http://activities.sugarlabs.org/en-US/sugar/addon/ 4061)
- Dextrose: Distribution of OLPC Sugar operating system jointly developed by Activity Central, Paraguay Educa, and Plan Ceibal (http://wiki. sugarlabs.org/go/Dextrose)

## **Patents**

[1] A. Simitsis, W. K. Wilkinson, J. Saldivar. 2013. A method for monitoring and analyzing in real-time the execution of large-scale parallel-executed SQL queries. U.S. Patent Application 83822125, filed January 2014. Patent Pending.

#### **Publications in Refereed Conferences and Journals**

- [1] T. Aitamurto, H. Landemore, J. Saldivar. *Unmasking the Crowd: Participants? Motivation Factors and Profile in Crowdsourced Law Reform.* Information, Communication and Society Journal. (under review)
- [2] T. Aitamurto, J. Saldivar. Motivation Factors in Crowdsourced Policymaking: Problemsolving, Learning, and Interaction with Peers and Experts. Computer-Supported Cooperative Work and Social Computing, 2016. (under review)
- [3] J. Saldivar, C. Rodriguez, F. Daniel, F. Casati, 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 Magazine. (under review)
- [4] J. Saldivar, C. Vairetti, C. Rodriguez, F. Daniel, F. Casati, R. Alarcón. Spreadsheet-based Testing of Business Process. Elsevier Information Systems Journal. (under revision)
- [5] T. Aitamurto, J. Saldivar, J. Salminen. Self-selection in Crowdsourcing Democracy: A Bug or A Future?. Crowdwork Workshop, ACM Conference on Supporting Groupwork, 2014, Sanibel Island, Florida, USA.
- [6] J. Saldivar, C. Parra, C. Rodriguez, L. Cernuzzi, V. D'Andrea. Participa: Fostering Civic Participation for Public Services Innovation. 13th Participatory Design Conference, 2014, Windhoek, Namibia.

- [7] G. Schiavo, M. Milano, J. Saldivar, T. Nasir, M. Zancanaro, G. Convertino. Agora 2.0: Enhancing Civic Participation Through a Public Display. 6th International Conference on Communities and Technologies, 2013, Munich, Germany.
- [8] J. Saldivar, L. Cernuzzi. Resultados del Club de Othello XO: Una Experiencia de Aprendizaje en Ambiente de Interacción Social. Congress of Technology Support Disabilities (IBERDISCAP), 2010, Ciudad de Mexico, Mexico.
- [9] L. Cernuzzi, J. Saldivar. Club de Othello Xo: Una Experiencia de Aprendizaje en Ambiente de Interacción Social. Congress of Technology Support Disabilities (IBERDISCAP), 2008, Cartegena, Colombia.