

# SANTIAGO BRAGAGNOLO

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## BIOGRAPHIC DATA

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<b>Complete name</b>	Santiago Pablo Bragagnolo
<b>Birth date</b>	16 november 1982
<b>Nationalities</b>	Argentinian, Italian
<b>EU eligibility</b>	YES

## CONTACT

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<b>Skype</b>	santiago.bragagnolo
<b>Linkedin</b>	linkedin.com/in/santiagoobragagnolo/
<b>Portfolio</b>	santiagoobragagnolo.info
<b>Blog</b>	knowledgeconvergence.wordpress.com
<b>Github</b>	github.com/sbragagnolo
<b>SmalltalkHub</b>	smalltalkhub.com/#!/sbragagnolo

## INRIA POSITION RELATED: BRIEF OF DOMAINS

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<b>Robotics</b>	2 years
<b>Internet of things</b>	2 years
<b>User experience (AKA human-machine interaction)</b>	12 years
<b>Gamification (Specific way of UX)</b>	1 year
<b>Software design, quality and maintenance</b>	12 years

## INRIA POSITION RELATED: BRIEF OF COMPETENCES

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<b>Languages</b>	Pharo Smalltalk, Java, Javascript, Scala, C++
<b>Technologies</b>	Unix, ROS, SQL, NoSQL, REST, JSON, XML, Multiple-cores
<b>Microcontroller programming</b>	Arduino
<b>Versioning tools</b>	SVN, GIT, Mercurial
<b>Continuous integration</b>	Jenkins
<b>Testing</b>	TDD 8 years experience
<b>Testing Technologies</b>	SUnit, JUnit, Selenium, ScalaTest
<b>Design Patterns</b>	7 years experience
<b>Working in multidisciplinary team</b>	2 years

## EXPERIENCE BRIEF

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<b>Software Industry experience</b>	11 years
<b>Research experience (Robotics)</b>	2 years
<b>Effective engineering study</b>	3.5 years
<b>Teaching programming on university</b>	5 years

## TECHNICAL STRENGTHS

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<b>Paradigms</b>	Object Oriented, Functional
<b>Languages</b>	Pharo, Scala, Java, C/C++, Javascript
<b>Application Middleware</b>	Tomcat, JBoss, Google App Engine
<b>Message Oriented Middleware</b>	DDS, ROS
<b>MVC Frameworks</b>	Seaside, SpringMVC, Grails, Play2
<b>Web Client Frameworks</b>	Backbone.js, Underscore.js, JQuery
<b>SQL Databases</b>	MySQL, PostgreSQL, Oracle, SQLServer
<b>NO-SQL Databases</b>	MongoDB, BigTable, Db4o
<b>Versioning</b>	Metacello, Monticello, SVN, GIT
<b>Building</b>	Make, Maven
<b>Processing Architectures</b>	Multithreading, Multiprocesses, Real time
<b>Software Architectures</b>	REST, Service, Client & Server, Data Processing (ETL), Actors
<b>Quality/Testing</b>	SUnit, JUnit, Jenkins
<b>IDEs</b>	Pharo, Squeak, Dolphin, Eclipse, Netbeans
<b>Operative system</b>	Ubuntu/Debian Linux, CentOS Linux / Redhat enterprise

## METHODOLOGY STRENGTHS

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<b>Working methodologies</b>	Agile, KanBan, XP, Pair programming
<b>Software design</b>	Domain Driven Design
<b>Quality assurance</b>	Continuous Integration, Continuous Delivery
<b>Development</b>	Test driven development, Behaviour driven development, Lean development

## LANGUAGES

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<b>Spanish</b>	Native
<b>English</b>	Written and spoken fluent competence
<b>French</b>	Written and spoken medium competence

## CURRENTLY WORKING ON

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**On my own** December 2014 - Currently

*Robots-du-Nord project*

Robots du nord is project about robots development, starting in a first stage of learning how to design and develop hardware and software for robotics and domotics domains.

Pre startup prototyping

- Business model definition
- Content writing
- Technology development

**On my own** October 2014 - Currently

*MetaDDS/SimpleDDS*

Skeleton and canon implementation of a Data Delivery Service (publisher/subscriber) framework and it full ROS and Pharo smalltalk specific implementation. Based on ROS standard and OMG-DDS standard.

Using for development Pharo 3.0

- You can checkit out from:
- <http://smalltalkhub.com/#!/sbragagnolo/MetaDDS>

- <http://smalltalkhub.com/#!/sbragagnolo/SimpleDDS>

## On my own

February 2014 - Currently

### *TaskIT*

Maintaining and enhancing TaskIT with Guillermo Polito

TaskIT had born and grow during the development of PhaROS during my job at Ecole des mines, and it was mean to be object oriented, easy to use, and with powerful, well tested, simple and reliable processing abstractions, in order to serve in a real-time processing environment.

- As well it provides some experimental functionalities for process understanding as the plan definition.
- We are currently working on Task-IT 2.0, which will have a great new suit of concept for process management
- You can checkit out from:
- <http://smalltalkhub.com/mc/sbragagnolo/TaskIT/main>

## INDUSTRY AND RESEARCH EXPERIENCE

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### Ericsson

May 2014 - September 2014

*Senior Java and C++ developer*

*Malaga, Spain*

- Design and development of a troubleshooting solution for mobile telephone networks
- ERA (Ericsson ran analyzer) Project. C++ and Java based high-performance client, based on data analysis and complex visualizations over a GIS Map.
- TPS (Trace processor server) Project. Java high-performance server for trace processing (system that faces problems of teras of data) with some IronPython for processing text files, with part of processing over hadoop and hive.
- ODG (OSS Data gateway) Project. Project that analyze data from OSS servers. Also Java high-performance server.
- All of these project are highly Multithreaded and based on distributed processing.
- The data containers of these project are based on Hadoop File system.
- Most of the data processed is reduced and stored into the client mapping data from several servers with workflow processing. (Based in ETL pattern)
- TDD and Continuous delivery evangelizer.
- Working under Agile with Scrum methodology
- Contact reference: Jose Antonio Hurtado +34 670 42 66 01; joseantonio.hurtado@gmail.com

### Ecole des mines de Douai

September 2012 - February 2014

*Software Research Engineer, Robotics*

*Douai, Nord-Pas-de-Calais*

- Design and development of the project RoboShop (<http://car.mines-douai.fr/RoboShop>), a robotic system for aiding persons to navigate into unknown spaces.
- My responsibilities are planning, engineering, development and technologic report writing for the projects RoboShop and PhaROS (<http://car.mines-douai.fr/PhaROS>).
- PhaROS is a framework for developing robot solutions for Pharo Smalltalk on the robotic middleware ROS. It implements a real time distributed architecture.
- The project RoboShop was presented in Picom and Vad Conext 2013 (Some content about <http://car.mines-douai.fr/2013/11/roboshop-demo-16oct2013/>)
- The project PhaROS is going to be presented in FOSDEM 2014, (<https://fosdem.org/2014/>) as PhaROS Towards Live Environments in Robotics in the Smalltalk devroom.
- From this position i also contribute with the project TaskIT (<http://smalltalkhub.com/#!/sbragagnolo/TaskIT>), which is a project for managing parallelism and concurrence in a Pharo smalltalk environment.

- The used technologies for the robot side are: Pharo, ROS, Python and C++. For the graphical interface: Pharo, Seaside, Bootstrap, Javascript, html+css3, for iPad
- Contact reference: Noury Bouraqadi +33 6 27 07 48 42; [noury.bouraqadi@mines-douai.fr](mailto:noury.bouraqadi@mines-douai.fr)

### **Fanwards (<http://www.fanwards.com/>)**

*Software engineer, gamification*

November 2011 - August 2012

*Ciudad de Buenos Aires, Argentine*

- Design and implementation of the web application Fanwards, front and backend. Working with the CTO.
- Using for front end heavy weight clients based on javascript technologies such as Backbone.js, jquery, underscore.js , mustache and for the view HTML5 and CSS3.
- Using for the backend a Google App Engine (GAE) Server with Scala & Java, Objectify for the mapping between objects and google's BigTable, Spring MVC and RestFul frameworks for routing and dispatching of exposed and scheduled behaviours. Finally twitter4j and facebookRest for interacting with social networks.
- From this position i have developed: a full intelligent single-page client based on javascript, a small functional library for javascript implementing some of the common haskell features (partial application, curryfication and function compositions), really useful abstractions for AJAX request processing, also developed a social network crawler for analysing users comments for branding (with heuristics to analyse the meaning of each comment).
- From this position i also participate not just in software design, planning and architecture but also in the gamification process of the application.
- During all the development of the application we used Scala BDD and TDD techniques with great success.
- Crossing data for brand reports with Map reduce.
- You can watch the most important part of the implementation in the following example [https://www.facebook.com/pages/Melee-Island-Inc/252598398140724?id=252598398140724&sk=app\\_232320516837452](https://www.facebook.com/pages/Melee-Island-Inc/252598398140724?id=252598398140724&sk=app_232320516837452)
- Contact reference: Claudio Fernandez [claudiof@gmail.com](mailto:claudiof@gmail.com)

### **Aufiero Informatica**

*Software architect, designer & developer*

March 2011 - November 2011

*Ciudad de Buenos Aires, Argentine*

- Project manager in charge of a 4 persons team.
- Reseller/Partner management system based on Groovy on Grails technology and communicating to software legacy done in PHP.
- Mail campaign web system for internal usage (For AVG campaigns). Done in Groovy and Grails / Jasper reports
- Email send system multi-engine, auto-deployable with load balance and mail tracking. Done in Groovy and Java, using Apache Email.
- Single sign on system for our different platforms - Done in Groove and grails.
- Contact Reference: Osvaldo Aufiero [osvaldo@aufiero.com.ar](mailto:osvaldo@aufiero.com.ar)

### **Buscouniversidad .com**

*Developer & system designer*

January 2011 - March - 2011

*Ciudad de Buenos Aires, Argentine*

- Designing of Data base structure, SQL queries.
- Design and development of the directory system (such as OLX, Craigslist, etc, but specific for universities)
- Based on PHP with Zend framework, sphinx and Javascript with JQuery. And in the development of processing tools
- Design and development of a processing based on patterns for recognising rejects and angry people (python);

- Design and development of an easy code generator for Zend framework
- Contact Reference: Pablo Morales pablofmorales@gmail.com

### **Aufiero Informatica**

*Software designer & developer - Project manager*

March 2007 - December 2010

*Ciudad de Buenos Aires, Argentine*

- Designer and developer of an Accountant management system - Java, Flex 3.1 JBoss
- Maintainer, developer and DBA of an Editorial integral management system (stock, accounting, finances, sells, shopping, etc) - visual basic 6.0 / sql server / Crystal reports.
- Designer and developer of ETL pattern for making up a small datawarehouse for sales analysis.
- Designer and developer - Classified ads management system - Net Framework 3.0 C# Nhibernate Windows form
- Software designer, developer and functional analysis - Billing online system - PHP, CakePHP, Javascript jquery.
- Software designer, developer - Electronic Invoice system (Based on the local taxes system) - Java, Groovy and Grails / jasper reports.
- Contact Reference: Osvaldo Aufiero osvaldo@aufiero.com.ar

### **MSA**

*DBA Oracle 9i & Postgres SQL*

2006

*Ciudad de Buenos Aires, Argentine*

- DBA of three productive databases related with ticket system (kind of ticketek but with less stress)
- My tasks were Data base monitoring, Backup, SQL Security, Database and query tuning for the productive systems (Oracle 9i) and making up configurations for eventual projects (Usually Postgres SQL)
- Parallely i had some small responsibilities in eventual projects

### **Research for decision**

*Developer*

2003 - 2005

*Ciudad de Buenos Aires, Argentine*

- Design and development of polls in eole/saxophone (language and poll system).
- Servers, machines and network maintenance.

### **Freelance**

*Developer, Designer, Architect, DBA & Client management*

2002 - 2009

*Ciudad de Buenos Aires, Argentine*

- This are the projects i have developed as independent, several of them still in usage, and I maintained almost them for one to two years.
- November 2002 to July 2003 - Nutritional preparations management system for a Parenteral Laboratory (UNANUT) - Visual Basic & Microsoft Access ( Supported until 2005). Contact Reference: Lorena Fazio faziolorena@yahoo.com.ar
- June 2003 to August 2003 - Stock management system for a box factory - Visual Basic & Microsoft Access ( Supported until 2004). Contact Reference: Gerardo Grimaldi grimaldi.gerardo@gmail.com
- July 2009 to March 2010 - Certification and courses management system SFAP - PHP (<http://www.facpce.org.ar/>) (Supported until 2011). Contact Reference: Christian Milokanovich milo76@gmail.com

## **EXPERIENCE IN OPEN SOURCE - COMMUNITY PROJECTS**

### **On my own**

*Making work Scala + Play + MongoDB*

Mars - May 2014

*Malaga*

- Putting together some existant technology for a project on my own
- Fully developed with Scala and Play. It has some java dependancies (Jackson for JSon marshalling)
- <https://github.com/sbragagnolo/mongodb>

**On my own**

June - August 2014

*Social secure plugin for Play running on top of MongoDB*

Malaga

- Social secure backend implementation for running on mongoDB
- Fully developed with Scala and Play.
- <https://github.com/sbragagnolo/SocialSecurePlayMongo>

**On my own**

Mars - August 2014

*Android*

Malaga

- Android application for knowing where to go to play football.
- <https://github.com/sbragagnolo/Where>

**Google summer of code**

May 2012 - September 2012

*Type inference on dynamic languages*

Ciudad de Buenos Aires, Argentine

- Design, development, planning and research in the topic of Concrete type inference.
- Mentored by Nicolas Passerini (npasserini@gmail.com).
- The proposal is registered <http://gsoc2012.esug.org/projects/type-inference>
- From this project i have implemented a concrete type inference system for Pharo Smalltalk 1.4, a graph of methods to be executed as response of the analysis of a given expression, and an object oriented logger.
- I also took the work of blogging all the work progress and design decisions in a blog. This project was presented in the conference ESUG 2012 - Gent - (<http://www.esug.org/wiki/pier/Conferences/2012>)
- Site - <http://concretetypeinference.blogspot.fr/>.
- Concrete type inferencer and the call graph analyser (Kwisatz Haderach) - <http://ss3.gemstone.com/ss/ConcreteTypeInference>
- Paule le poulpe; Object oriented Logger - <http://smalltalkhub.com/mc/sbragagnolo/PLP/main>

**ESUG financed Project**

May 2011 - September 2011

*Developer in DBXTalk*

Ciudad de Buenos Aires, Argentine

- Design and implementation of the automatic binding and scaffolding for DBXTalk (ex SqueakDBX) and Glorp.
- DBXTalk (<http://dbxtalk.smallworks.com.ar/>) is a bridge that gives support for the database systems to mainstream Squeak and Pharo smalltalk.
- This project with the porting of Glorp to Pharo (by Guillermo Polito) were presented in ESUG 2011 - Edimburgh (<http://www.esug.org/wiki/pier/Conferences/2011>)
- Contact Reference: Guillermo Polito [guillermopolito@gmail.com](mailto:guillermopolito@gmail.com)

**FACPCE financed Project - Used for SFAP**

2009

*Developer in Cornucopia framework*

Ciudad de Buenos Aires, Argentine

- PHP Cornucopia. Is an already obsolete full stack framework. It provides:
  - Collections
  - Simple ORM configurable by metadata
  - Simple dependency injector
  - HTML reification for composing and HTML generation
  - Javascript generation by metadata (Requirements, etc)
  - Request reification as object
  - Session reification as object
- Check it out from: <https://github.com/sbragagnolo/cornucopia>

- Contact Reference: Christian Milokanovich milo76@gmail.com

### **On my own for an university topic**

2007

*Developer in C Objects framework*

*Ciudad de Buenos Aires, Argentine*

- C Objects. Is a framework to provide several object oriented programming features to C. It provides:
  - Collections (Dictionary, List)
  - Strings
  - Server, with node objects for managing requests
  - Automaton for simple language interpretation
  - Threads reification
  - Mutex and Conditional reifications
  - Error management (managed by signals, giving the chance to register error handlers and to raise errors)
  - Memory management.
- Check it out from: <https://github.com/sbragagnolo/c-objetos>
- Contact Reference: nicolassouto@gmail.com

## **TEACHING EXPERIENCE**

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### **Universidad Tecnológica Nacional (UTN)**

March 2007 - July 2012

*Adhonorem teaching assistant at Advanced programming techniques  
Argentina*

*Ciudad de Buenos Aires,*

- Teaching the next concepts, techniques and tools
  - Object oriented programming
    - Patterns
    - Methodologies TDD/BDD, DDD, Agile
    - Re-factors
    - Meta-programming
  - Basic architectures
  - Technologies
    - Maven
    - IDEs - Eclipse, Idea, Netbeans
    - JUnit, ScalaTest
    - SVN & GIT
  - Dynamic languages
    - Scala
    - Python
    - Smalltalk
    - Self

- Modern applied concepts
  - Traits and Mixins
  - Lambdas / anonymous functions
- Contact Reference: npasserini@gmail.com

**Universidad Tecnologica Nacional (UTN)**

*Adhonorem teaching assistant at Programming paradigms*

March 2007 - December 2011  
Ciudad de Buenos Aires, Argentine

- Teaching the next concepts, techniques and tools
  - Object oriented paradigm
    - Pharo Smalltalk
  - Functional oriented paradigm
    - GHC
    - WinHugs
  - Logical oriented paradigm
    - Swi prolog
- Contact Reference: carlombardi@gmail.com

**Fundacion Proydesa**

*Oracle DBA Instructor*

March 2006 - November 2007  
Ciudad de Buenos Aires, Argentine

- In this foundation i worked as instructor of three of the four basic modules of Oracle for Database administration
- SQL (Module 1)
- Engine Architecture (Module 2)
- Tuning (Module 4)
- I also participate as instructor in the instruction of new instructors for modules 1 and 2.

## EDUCATION

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**Universidad Tecnologica Nacional (UTN) - Ciudad de Buenos Aires - Argentine** *January 2004 - Aborted on 2011 because family problems, having papers to proof 7 semesters of career of 10*  
Software Engineer

**Ing. Otto Krause - Ciudad de Buenos Aires - Argentina**  
Technic in computation

*December 2001*