



Alvaro Henry Mamani Aliaga

M.Sc. in Computer Science

“Live as if you were to die tomorrow. Learn as if you were to live forever.” - Mahatma Gandhi

Personal Information

Name Alvaro Henry Mamani Aliaga
Nationality Peruvian

Education

2009–2011 **Master of Science**, *Institute of Mathematics and Statistics - University of São Paulo, São Paulo-Brazil, M.Sc. in Computer Science.*
title : *Comparative study of scheduling strategies for grid computing applications.*
advisor : Alfredo Goldman.

2001–2006 **Bachelor in Computer Science**, *National University of San Agustín , Arequipa-Perú.*

Computer skills

OS	Linux, Mac OS	Administration	Apache, Tomcat
IDE	Eclipse, Netbeans, VIM	scripting	perl, Shell, Javascript
Programming	Java, C/C++	typography	L ^A T _E X
web design	HTML5, XHTML, CSS, AJAX	database	MySQL, PostgreSQL
Mobile	Android	NoSQL	Cassandra
Continuous Integration	Jenkins	Version Control	SVN, Git

Professional Experience

2013-2 - **Professor of Parallel Programming at Computer Science Program, San Pablo Catholic University, Arequipa - Perú.**
Current
Parallel Programming: I'm teaching different techniques to parallel programming (CPAR, MPI, OpenMP), parallel models, etc.

2012 - 2013-1 **Software Engineer (Researcher and Fellow DTI-A CNPq)**, *Universidade Federal de São Paulo - ICT*, São José dos Campos - São Paulo - Brazil.

Project: *Maritaca project.*, Cloud Computing (Cloud) for Mobile Data Collection, that allows users, even those with little or no familiarity with computational tools, create their own procedures for collecting data from mobile phones.

The tools used in this project are RESTful services and Spring framework. Cassandra in persistence layer. The mobile module is implemented in Android. Hadoop as a distributed file system to persist unstructured data. Solr as a search engine server. This project is open source, available in <http://sourceforge.net/p/maritaca/>.

2009 - 2011 **Master Candidate - Scholarship CNPq**, *DCC-IME/USP*, São Paulo-Brazil.

Project: *Escalonamento em grades computacionais*. Research Project to study and compare scheduling techniques to grid computing. To do that was used a grid simulator wrote in the C programming language. All this research was made using Linux system operating and free software tools: Shell, Perl, Gnuplot, C programming language, SimGrid Simulator, Graphviz, Jedule, L^AT_EX, VIM editor and others. The performance analysis was made on task dependent scheduling algorithms.

I contributed on the Mezuro project, it was developed in Java. In a course called Free Software Development, I develop small issues and correct some bugs about the project.

I worked on the Integrate project, it was mainly developed in Java. In a course called eXtreme Programming, I develop small issues and correct some bugs about the project.

2007-2 - 2008 **Software Engineer**, *Global System and Consulting*, Arequipa-Perú.

I worked in a project Moctezuma Corpotarian, with a content server FatWire. I created new templates and managed the content using FatWire.

I worked in a project J2EE called GlobalTour. This project was made using the JEE specification. The main frameworks that were used in this project are: Strust, Hibernate and Spring. I also worked in the project JEE called "Plataforma de Operaciones On-Line para microfinancieras" is about HomeBanking for microfinances. In this project were used mainly the following frameworks: Struts2, Hibernate and Spring.

I worked in the project J2EE "Implantación IDOL 7 SFP", using the following technologies: Dojo toolkit, Spring MVC.

2007-1 **Research trainee**, *University of San Agustín*, Arequipa-Perú.

This was part of the main Project called CYTEDGRID, which goal was to have a big set of applications and resources in any part of the world to user the GRID technology. To do that was developed a node (cluster point) using Globus Toolkit. This was made on Linux SO. Using free tools.

Languages

Spanish **Native**

Portuguese **Very Good**

Fluent read, speak and write

English **Good**

Fluent read, speak and write

Research Interests

-Distributed and Parallel Computing

-High Performance Computing

-Big Data

-Mobile Computing

-Cloud/Grid Computing

-Object Oriented Programming

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Publications

Alvaro Mamani-Aliaga, Arlindo Conceição, Tiago Barabasz, Matheus Mendonça Jimmy Valverde, and Bruno Santos. Ferramentas para Coleta Móvel de Dados. May 2013.

Alvaro Mamani-Aliaga, Arlindo Conceição, Tiago Barabasz, Matheus Mendonça Jimmy Valverde, and Bruno Santos. Open Architecture for Mobile Data Collection using Cloud Computing. *2013 IEEE 14th International Conference on Mobile Data Management*, 2:160–165, 2013.

Alvaro Mamani-Aliaga, Arlindo Conceição, Tiago Barabasz, Matheus Mendonça Jimmy Valverde, and Bruno Santos. Projeto Maritaca: Arquitetura e Infraestrutura para Coleta Móvel de Dados. In *Simpósio Brasileiro de Redes de Computadores e Sistemas Distribuídos*, Brasília-DF, Brazil, May 2013.

Alvaro Mamani-Aliaga, Arlindo Conceição, Tiago Barabasz, and Jimmy Valverde. Maritaca Project: Make yourself mobile applications to health data gathering in the cloud. In *XIII Congresso Brasileiro de Informática em Saúde*, Curitiba, Brazil, November 2012.

Alvaro Mamani-Aliaga, Arlindo Conceição, Jimmy Valverde, Matheus Mendonça, Bruno Santos, Dario Vieira, and Vladimir Rocha. Maritaca: an Arquitetura to Empowering Users to Create Their Own Mobile Application for Data Collection. In *Fifth International Conference on Mobile Computing, Applications and Services*, Paris, France, November 2013.

Alvaro Mamani-Aliaga and Alfredo Goldman. Estudo Comparativo de Algoritmos de Escalonamento para Grades Computacionais. In *II Escola Regional de Alto Desempenho - São Paulo*, São José dos Campos, SP, Brazil, July 2011.

Alvaro Mamani-Aliaga, Alfredo Goldman, and Yanik Ngoko. A comparative study on Task Dependent Scheduling Algorithms for Grid Computing. *Simpósio em Sistemas Computacionais (WSCAD-SSC)*, 0:202–209, October 2012.

Interests

Programming I am a programming fan, since my first language (C++). I love to learn and research.

Open source I am a fan of the open source. The almost software I use is *FREE*.

Cooperation I collaborated in the organization of some academic events.

Communication The use of different communication mechanisms are very important to me, either directly or using tools such as mailing lists, chats and others.

Knowledge I like to learn things about my career and others.

Travelling I like to know new people, cultures and places.