

Arthur Rodrigo Sawazachi Valadares

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❖ Professional Summary

Graduate PhD candidate from UCI with 3 years of professional experience, seeking positions in areas of **software engineering** and **systems technology**. In particular: *distributed systems, networking, operating systems, and virtualization*. My domain expertise is in software architecture and back-end technologies, such as OS (mainly Linux), low-level high-performance languages, and multithreaded and distributed applications.

❖ Education

PhD Candidate in Information and Computer Science

University: University of California – Irvine, Information and Computer Science, Irvine, CA, USA

Admission: 09 / 2010 **Expected Graduation:** 12 / 2016 **Current GPA:** 3.97

- 1st Place in Butterworth Product Development Competition, UCI (06/2011)
- Two-Time Awarded UCI's Miguel Velez fellowship (2010,2011)
- University Fellowship (Researcher/TA)
- Graduate Student Researcher with professor Crista Lopes
- Researching scalability of multiuser real-time groupware and virtual environments

M.S. Master of Science: Information and Computer Science

University: University of California – Irvine, Information and Computer Science, Irvine, CA, USA

Graduation: 03 / 2013 **GPA:** 3.94

B.S. Bachelor of Science: Computer Engineering

University: UNICAMP - UNIVERSIDADE ESTADUAL DE CAMPINAS, Campinas, SP, Brazil

Graduation: 06 / 2008

- Internship as Network Administrator in LAGE; Project on decoding of video in FPGA on Theora; Elected undergraduate representative for school.

❖ Qualifications

Programming Languages: Python, C, C#, C++, Assembly (x86), Java, Objective C, Javascript, VHDL, SQL, PHP, Bash Scripting

Github Repo: <https://github.com/arthur00/>

Hardware Architectures: Power, Z, and Intel (on Linux distributions)

OS: Linux (kernel and application development), Windows

IDE/Tools: Eclipse, PyDev, UNIX tools, MonoDevelop, .NET Visual Studio, Unity 3D

Spoken Languages: Fluent English, Fluent Portuguese – Native language

❖ Professional Experience

Broadcom (Irvine, CA)

Position: **PhD Technical Intern** 06/2015-09/2015

- Responsible for designing and implementing a solution for firmware test regression and result aggregation. Implemented on Python using SQLAlchemy for ORM.
- Led the effort of the test regression framework with a remote team in Singapore.
- 2nd place in company-wide Intern Hackathon.

Intel (Hillsboro, OR)

Position: **Graduate Intern Technical** 04/2013-09/2013

- Solely responsible for design and development a space-partitioning feature in the Distributed Scene Graph (DSG), a software architecture for scalability of virtual environments.
- C# Implementation using OpenSimulator codebase on a distributed system environment.

Siemens Corporate Research (Princeton, NJ)

Position: **Intern Software Engineer** 06/2011 – 09/2011

- **Summary:** Development of rail vehicles' control system.
- **Skills:** C and C++, Linux Kernel API's, embedded systems, multithreaded highly-concurrent development and debugging, and hardware and OS abstraction layers for Linux.

IBM – International Business Machines (Hortolândia, SP, Brazil)

Position: **Full-time Software Engineer** 06/2008 - 08/2010

- **Summary:** Worked on the LTC (Linux Technology Center) group, developing open-source software for IBM Linux Solutions.
- **Projects:** Worked on virtual environment simulation for a remote team collaboration solution (Lotus Sametime 3d). Additionally, worked with Linux builds, deployed on Power, Z and X series, mono, anaconda and yast.
- **Achievement:** Was voted a core developer by the *OpenSimulator* open-source community while working with IBM Research on Lotus Sametime 3D. I am currently inactive, but still hold the position of core developer.

LAGE – Laboratório de Análises Geoeconômicas de Recursos Minerais (SP, Brazil)

Position: Linux/Windows Network Admin, Internship 09/2006 - 06/2008

- Laboratory and a research group focused in geo-economical research.
- Activities: Software development of optimal portfolio software development and sysadmin (Linux and Windows Server).

❖ **Publications**

- 1) CADIS: Aspect-Oriented Architecture for Collaborative Modeling and Simulation; Winter Simulation Conference 2016
- 2) On Designing and Testing Distributed Virtual Environments; Wiley Concurrency and Computation Journal 2015
- 3) Enabling Fine-Grained Load Balancing for Virtual Worlds with Distributed Simulation Engines; Winter Simulation Conference 2014
- 4) Framework for Designing and Evaluating Distributed Real-Time Applications; DSRT 2014
- 5) Evolution of Scalability with Synchronized State in Virtual Environments; MMVE 2012
- 6) RESTful Massively Multi-User Virtual Environments: A Feasibility Study; IGIC 2012
- 7) RCAT: a RESTful Client-scalable Architecture; Netgames 2011
- 8) Virtually Centralized, Globally Dispersed: A Sametime 3D Analysis; LAMDa'11 Workshop, IUI 2011