

Alina Quereilhac

“Systems engineer with scientific background and extensive experience in architecture and development”

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🌐 www-sop.inria.fr/members/Alina.Quereilhac

EDUCATION

Univ. of Nice Sophia-Antipolis, France

PH.D. CANDIDATE | Expected Feb. 2015

LABORATORY: INRIA SOPHIA ANTIPOLIS

Thesis topic: Integration of heterogeneous experimental environments for the evaluation of networking protocols and applications

University of Buenos Aires, Argentina

ENGINEERING DEGREE IN INFORMATICS | 2008

Final project: Solving sparsity and cold start problems in recommender systems

Graduated with honor diploma

SKILLS

LANGUAGES	Python, C/C++, Java, Php, Bash
ARCHITECTURE	UML, Design patterns
METHODOLOGY	Agile development, Unit testing
VERSION CONTROL	Mercurial, Git
SYS. ADMIN.	Linux (Debian/Fedora)
DATABASES	MySQL, PostgreSQL
DATA ANALYSIS	NumPy, matplotlib
PROGRAMMING	Object-oriented programming,
TECHNIQUES	Multithread programming, Distributed programming, Socket programming
NETWORKING	TCP/IP stack, CCNx
VIRTUALIZATION	Linux Containers (LXC), TAP/TUN
DEBUGGING	GDB, strace, tcpdump

OPEN SOURCE PROJECTS

NEPI | TEAM LEAD AND ARCHITECT | 🌐 <http://nepi.inria.fr>

NEPI is a Python-based programming interface for network experiment management, capable of controlling simulators, emulators, and networking testbeds. NEPI counts with users both in academia and industry (LIP6, INRIA, Elecnor Deimos). Designed the current architecture and developed the core modules for experiment modeling and deployment automation.

NS-3 Simulator | PROGRAMMER | 🌐 <http://www.nsnam.org>

The ns-3 simulator is a C++ discrete-event network simulator for Internet systems, with application layer emulation capabilities. Developed the fd-net-device module to transparently exchange network traffic between the simulator and the real world.

INTERESTS

Rollerblading **Reading** **Roller Hockey**
Cinema **Improv. theater** **Writing** **Traveling**
Drawing **Comic Books** **Archery**
Statistics **Biology** **Painting**

WORK EXPERIENCE

INRIA, France

RESEARCH ENGINEER | 2010 — Present

Experimental environments for future Internet architectures |

🌐 <http://www.inria.fr/en/teams/diana>

- Led a three person team for the Network Experiment Programming Interface (NEPI) project.
- Designed the architecture of a generic and extensible API to model network experiments using simulators, emulators, and network testbeds, and implemented the core logic to control experiments on these platforms.
- Contributed to the development of experimental networking platforms, including the NS-3 network simulator, the Nemu emulator, and PlanetLab Internet testbed.
- Led tasks on network experiment control for testbed federation in two European projects (Fed4FIRE, Openlab).

PARC, USA

RESEARCH VISITOR | 3 months 2013

Content Centric Networking | 🌐 <http://www.ccnx.org>

- Developed experimental framework to evaluate Content Named Networking (CCNx). CCNx implements a new networking paradigm aimed at replacing TCP/IP stack on the Internet.
- Evaluated CCNx flooding routing mechanism, using the developed framework.

Kohali S.A., Argentina

PHP PROGRAMMER AND ARCHITECT | 2009 — 2010

Web products | 🌐 <http://www.metroflog.com>

- Designed the architecture of a Object-Relational Mapping framework for large MySQL databases and implemented it in php.
- Developed MetroFlog Web site using Object Oriented Programming in php.
- Developed Javascript widgets using Prototype and Scriptaculous.

Capgemini, Argentina

JAVA PROGRAMMER AND REQUIREMENT ANALYST | 2008 — 2009

Consulting, Technology and Outsourcing

Livra.com, Argentina

JAVA PROGRAMMER AND SYS. ADMIN. | 2006 — 2008

Online survey services in Latin America

Solar Servicios Online S.A, Argentina

JAVA PROGRAMMER | 2004 — 2006

Credit Information & Payment Processing Services

References available on demand

LANGUAGES

Spanish (*Native*) — English (*Working proficiency*) — French (*Working proficiency*)