

Curriculum Vitae

Contacts and Personal References

Name: Maximiliano Cristiá

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Education

In 1993 I received the degree of “Licenciado en Matemática” from the Universidad Nacional de Rosario (Argentina), and in 2002 the MSc degree in Computer Science from the Universidad de la República (Uruguay). The Master thesis was about the formal verification of security properties in UNIX-like operating systems, and it was done under the direction of **Dr. Nora Szasz** and **Dr. Eduardo Giménez**. A summary of my thesis was awarded with the fourth prize in the X UNESCO-CLEI Master Thesis Contest in 2003. As a result of this prize the summary was published in the Proceedings of the XXIX Latinamerican Informatics Conference. A copy of the thesis can be downloaded from www.fceia.unr.edu.ar/gidis.

Professional Activities

In Academia

Adjunct Professor since 1998 in charge of various undergraduate and graduate Software Engineering and Computer Security courses at:

- Universidad Nacional de Rosario (Argentina)
- Universidad Nacional de Córdoba (Argentina)
- Universidad de la República (Uruguay)

Some topics of my courses are formal methods (such as Z, CSP and so on), software architecture and design, formal verification, testing, formal security models, security implementation in

UNIX-like operating systems, formal specification of security properties and some industry oriented issues of Computer Security (firewalls, VPNs, risk management, etc.). More information can be found at www.fceia.unr.edu.ar/{[asist](#), [ingsoft](#), [mfsi](#)}.

On the other hand, I have been the tutor of some students at Rosario, Córdoba and La Plata universities during their thesis projects. Also, I have been referee in some international conferences and congress.

I have been teaching at the University since 1986 when I started as assistant.

Group Leader of the R+D Group on Software Engineering and Computer Security (GIDISS) at the Engineering Faculty (Universidad Nacional de Rosario, Argentina). This group has developed a Multi-Level Secure Linux prototype and it is currently working on the second version called GIDISS Trusted Linux. Both versions have been developed using formal methods, with particular emphasis in Z and The Coq Proof Assistant (from INRIA, France). See more at www.fceia.unr.edu.ar/gidis.

Before founding GIDISS, I was project leader, researcher and contract manager at Lifia Laboratory (Univesidad Nacional de La Plata, Argentina) for two years. Among other things, in that job I was in charge of the contract between Lifia and ATX Software (Portugal) where 8 of my students developed software for the company and some of them performed their undergraduate thesis.

Invited Professor at the Université D'Aix-Marseille III (France) and invited talker at Université Paris 7 "Denis Diderot" (France).

In Industry

During 2004 I co-founded, with Guillermo Marro, [FlowGate Security Consulting](#) a company in wich I hope I can apply all of the knowledge learned at academia as well as all of the practice experience gained during my years as independent consultant.

While I was an independent consultant and now as FlowGate's partner I collaborate at [Pragma Consultores](#) (Buenos Aires, Argentina) as freelance consultant in Information and Computer Security projects.

Before, I worked four years as Chief of the Computer Security Department of the Rosario City Hall (Argentina).

Computing Expertise

Computer Security: cryptographic protocols, operating system security (UNIX), TCP/IP security, authentication mechanisms, formal models of computer security, formal verification of security properties, Linux kernel security enhancements, BAN logic, etc.

Requirement Engineering: WRSPM model of requirement and specifications, formal notations such as Z, CSP, Coq, TLA and several tools to work with them (Z/EVES, The Coq Proof Assistant, etc.).

Software Architecture and Design: Object Oriented Design, Tool Abstraction, Blackboard Systems, Software Architecture Analysis Method (SAAM), and the Wright ADL.

Software Verification: structural testing, functional testing based on formal specifications, formal verification of software properties with a couple of proof assistants.

Letters of Recomendation

The following people can give full reports about me:

Lic. Gabriel Baum

Professor and researcher at Universidad Nacional de La Plata (Argentina)

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Dr. Daniel Fridlender

Adjunct Professor and researcher at Universidad Nacional de Córdoba (Argentina)

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Dr. Nora Szasz

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Maximiliano Cristiá

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