

## João Miguel Franco



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### EDUCATION

*Doctoral Program in Information Science and Technology (Ph.D.),*  
University of Coimbra, expected in 2014

*Masters in Computer Science (MSc),*  
Final grade of 16 (0-20)  
Faculty of Science and Technology, 2008-2010  
University of Coimbra

*Transits Course for CSIRT Professionals,*  
TERENA, May of 2010

*Graduation in Computer Science (BSc),*  
Final grade of 14 (0-20)  
Faculty of Science and Technology, 2004-2009  
University of Coimbra

### COMPUTER SKILLS

During my academic path, I had the opportunity to develop different projects which handled different concepts following summarized:

*Programming Languages & Software:* Java, C, C++, Python, ADA, Matlab, R, HTML, JSP, PHP, XML, XSD, XSLT, among others.

*Operating Systems (both servers and for personal use):* Mac OS X, Linux, Windows and OpenBSD

*Database Engines:* MySQL, PostgreSQL, Oracle, LucidDB and MonetDB

In my internship I implemented several Kernel Extensions in Mac OS X (10.5 a.k.a Leopard) that hooked system calls in order to hide files, directories, processes, inter-

cept executed commands from a SSH session or PHP web-shell. I also used covert-channel techniques in order to dissimulate usual network traffic as DSN traffic.

Since I joined the PhD Program in the University of Coimbra, I have been working with software architecture, architecture-based reliability prediction, self-adaptive systems and probabilistic model checking.

**EXPERIENCE**      *Researcher*      From January 2011  
Center for Informatics and Systems of the University of Coimbra (CISUC)  
Software and Systems Engineering (SSE)

- Automated evaluation methods to assess reliability from a software architecture description.

*Internship*      September 2009 - July 2010  
CERT-IPN, the CSIRT Core of Instituto Pedro Nunes  
Coimbra, Portugal

- Implementation and deploying Neofelis, a framework for high-interaction honeypot for Mac OS X.

*Banking Collaborator*      July 2009 - November 2009  
CERT-IPN  
Coimbra, Portugal

- Updating the network systems of several bank branches across the country

*Information Systems Supporter*      March 2009 - September 2009  
Laboratorio de Informatica e Sistemas (LIS)  
Instituto Pedro Nunes (IPN)  
Coimbra, Portugal

- Updating the network systems of several bank branches across the country

**CONFERENCES**

- Speaker at the Latin-American Symposium on Dependable Computing in Rio de Janeiro, Brazil in 2013, with the following articles:
  - "Reliability Analysis of Software Architecture Evolution"
  - "Self-Adaptive System Case-Study of Architecture-Based Software Reliability"
- Speaker at the Joint 10th WICSA & 6th ECSA in Finland with the article entitled Automated Reliability Prediction from Formal Architectural Descriptions in 2012.
- Publication of the article ICE Snow Leopard in the i.business magazine # 4 in May of 2011.
- Speaker at the Ibero-American Web Application Security Conference in Lisbon, Portugal with the topic Neofelis, High-Interaction Honeypot Framework for Mac OS X in November of 2010.

- Speaker at Apple Tech Talks at March 29 (Coimbra) and 30 (Lisbon), 2010 with the topic Neofelis, a framework of a high-interaction honeypot for Mac OS X.
- Speaker at Confraria Security & IT at March 13, 2010 with the topic Neofelis.
- Speaker at International Conference on Artificial Neural Networks (ICANN) 2009 in Cyprus with the topic Epileptic Seizure Prediction and The Dimensionality Reduction Problem.

## Languages

	<b>Listening</b>	<b>Reading</b>	<b>Speaking Interaction</b>	<b>Writing</b>
English	C	C	B2	C
Spanish	B1	B1	A2	A2