NICOLÁS E. BORDENABE

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Experience

Postdoctoral Associate at Florida International University (United States)
January 2015 — Present
Working with Dr. Geoffrey Smith, the main goal of this postdoc is to study the effect of correlations between secrets in the context of quantitative information flow, using the framework provided by the general theory of g-leakage. Other directions of interest include computational variants of leakage and relations with cryptographic techniques.

Postdoctoral Fellow at École Polytechnique & MSR-Inria (France)
October 2014 — December 2014
Short post-doctoral position used to polish the final version of my PhD thesis and prepare journal versions of the publications produced during the PhD.

PhD student at Inria (France)
October 2011 — September 2014
Worked under the supervision of Dr. Catuscia Palamidessi and Dr. Konstantinos Chatzikokolakis. My research was focused on a generalization of the notion of differential privacy, and the study of its applications in different domains, with particular interest in the case of location privacy. During this time, three papers on the topic were published in prestigious privacy and security conferences.

Python and Plone developer at Menttes S.R.L. (Argentina)
June 2010 — August 2011
Designed and implemented front end (HTML/JavaScript) and back end (Python) of several web systems and intranets using the Plone Content Management System.

Education

PhD in Computer Science.
École Polytechnique, France. **September 2014.**
Thesis: *Measuring Privacy with Distinguishability Metrics: Definitions, Mechanisms and Application to Location Privacy*. Latest version available at **nbordenabe.me/files/thesis-final.pdf**
Mention: Très Honorable.

- **Prix de thèse de l'Ecole Polytechnique 2015**: One of the eleven awarded PhD thesis, from a total of 104 dissertations defended in 2014.

Master in Computer Science.
FaMAF, Universidad Nacional de Córdoba, Argentina**. March 2011.**
GPA: 9.89 / 10.

- **ACM-ICPC 2010 World Finals**: 36th position (shared) over 103 universities worldwide in the 2010 ICPC World Finals, held in Harbin, China (http://icpc.baylor.edu/community/results-2010).

Bachelor in Computer Science.
FaMAF, Universidad Nacional de Córdoba, Argentina**. December 2008.**
GPA: 9.72 / 10. Ranked 1st best GPA in FaMAF, and 3rd in Universidad Nacional de Córdoba.

- **Intel Grant for Academic Excellence 2008**: First place between all applicants from Universidad Nacional de Córdoba.

- **Santander Rio Academic Merit Award, 2008**: Part of the top 400 GPAs between all applicants from selected universities nationwide.

Skills

Programming Languages:

- Substantial experience with **C** and **C++**.
- Experience with **Python**, **HTML** and **JavaScript**.
- Some experience with **Java** (for college projects), and **C#** (with Unity).

Platforms and Tools:

- Experience with the **Django** Web framework and the **Plone** Content Management System.
- Some experience with the **Unity** game development ecosystem.
- Experience developing in **Mac OS X** and **GNU/Linux**.

Languages:

Spanish (Native)**, English** (Fluent, written and spoken)**, French** (Basic, spoken)

Publications

Optimal Geo-Indistinguishable Mechanisms for Location Privacy.
N. E. Bordenabe, K. Chatzikokolakis, C. Palamidessi.
Proceedings of the 21th ACM Conference on Computer and Communications Security (CCS 2014)

Geo-indistinguishability: Differential Privacy for Location Based Systems.
M. E. Andrés, **N. E. Bordenabe**, K. Chatzikokolakis, C. Palamidessi.
Proceedings of the 20th ACM Conference on Computer and Communications Security (CCS 2013)

Broadening the scope of Differential Privacy using metrics.
K. Chatzikokolakis, M. E. Andrés, **N. E. Bordenabe**, C. Palamidessi.
Proceedings of the 13th International Symposium on Privacy Enhancing Technologies (PETS 2013)

Additional Information

Programming Contests:

- **ACM-ICPC**: Regionals contest from 2006 to 2009. Advanced to the 2010 World Finals.
- Regular participation in online competition like **Google Codejam**, **Facebook Hackercup** and **Topcoder Open**, generally advancing through Round 2.

Presentations in Conferences and Workshops:

- **ACM CCS 2014**. November 2014, Scottsdale, AZ, USA.
- **ACM CCS 2013**. November 2013, Berlin, Germany.
- **4th Atelier sur la Protection de la Vie Privée (APVP)**. June 2013, Les Loges en Josas, France.
- **5th Atelier sur la Protection de la Vie Privée (APVP)**. June 2014, Cabourg, France.

Courses Attended:

- **Advances Statistics and Data Mining Summer School (ASDM).**
  June 2014, Universidad Politécnica de Madrid, Spain.
  Courses attended: *Bayesian Networks, Supervised Pattern Recognition, Statistical Inference, Unsupervised Patter Recognition* (15 hours each).
- **International School on the Foundations of Security Analysis and Design (FOSAD)**.
  September 2012, University Residential Centre of Bertinoro, Italy.