Germán Andrés Delbianco

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Personal Info

Date of Birth: November 25, 1984.

Place of Birth: Rosario, Argentina.

Nationality: Argentine / Spanish.

Education

Universidad Politécnica de Madrid	**Madrid, Spain**
Ph.D. in Computer Science, Grade : Sobresaliente	*2011–2017*

Dissertation : *Hoare-style Reasoning with Higher-Order Control : Continuations & Concurrency*.
Advisor : Dr. Aleksandar Nanevski, IMDEA Software Institute

Universidad Nacional de Rosario	**Rosario, Argentina**
Licenciate in Computer Science, Final Grade : 8.87 / 10.	*2003–2010*

(5 years + thesis project, undergraduate degree in Computer Science.)
Undergraduate thesis : *Program Calculation with Applicative Functors*.
Advisors : Dr.rer.nat Alberto Pardo, UDELAR ; Dr. Mauro Jaskelioff, UNR / CIFACIS - CONICET.

Employment

IRIF	**Paris, France**
Post-doctoral Researcher	*Sept. 2017 –*
IMDEA Software Institute	**Madrid, Spain**
Ph.D. candidate	*Oct. 2011 – Aug. 2017*

Advisor : Dr. Aleksandar Nanevski.

IMDEA Software Institute	**Madrid, Spain**
Research intern	*Dec. 2010 – Sep. 2011*

Supervisor : Dr. Aleksandar Nanevski.

Universidad Nacional de Rosario.Computer Science Dept.	**Rosario, Argentina**
Teaching Assistant	*Dec. 2008 – Dec. 2010*
INRIA. Centre de Sophia-Antipolis Méditerranée	**Sophia-Antipolis, France**
Research Intern	*Apr. 2008– Oct. 2008*

Team :*PULSAR*. Supervisor : Dr. Annie Ressouche.

Universidad Nacional de Rosario. Computer Science Dept.	**Rosario, Argentina**
Teaching Assistant	*Aug. 2007 – Mar. 2008*

Publications

Peer-Reviewed Publications...

[1] G. A. Delbianco, I. Sergey, A. Nanevski, and A. Banerjee. Concurrent data structures linked in time. In *31st European Conference on Object-Oriented Programming, ECOOP 2017*, 2017.

[2] I. Sergey, A. Nanevski, A. Banerjee, and G. A. Delbianco. Hoare-style specifications as correctness conditions for non-linearizable concurrent objects. In *ACM SIGPLAN International Conference on Object-Oriented Programming, Systems, Languages, and Applications, OOPSLA*, 2016.

[3] A. Nanevski, R. Ley-Wild, I. Sergey, and G. A. Delbianco. Communicating state transition systems for fine-grained concurrent resources. In *Programming Languages and Systems - 23rd European Symposium on Programming, ESOP*, 2014.

[4] G. A. Delbianco and A. Nanevski. Hoare-style reasoning with (algebraic) continuations. In *ACM SIGPLAN International Conference on Functional Programming, ICFP*, 2013.

[5] G. A. Delbianco, M. Jaskelioff, and A. Pardo. Applicative shortcut fusion. In *Trends in Functional Programming, TFP*, 2011.

Drafts in Submission..

[6] A. Nanevski, A. Banerjee, and G. A. Delbianco. Subjective simulation as a notion of morphism for composing concurrent resources. *CoRR*, abs/1709.07741, 2017.

Selected Talks

— Concurrent Data Structures Linked in Time. The 5th ACM SIGPLAN Workshop on Higher-Order Programming with Effects (HOPE 2016). Collocated with ICFP 2016. Nara, Japan. September 18th 2016. *(Accepted Talk)*
— Concurrent Data Structures Linked in Time. VT Seminars-Computer Science Department, University of Sheffield. Sheffield, UK. May 6th, 2016. *(Invited Talk)*
— Concurrent Data Structures Linked in Time. 3rd Microsoft Research-IMDEA Collaboration Workshop (MICW). Cambridge, UK. May 4th, 2016. *(Invited Talk)*
— Concurrent Hoare Style Reasoning, De-constructed. SELEN Seminar Series. Department of Computer Science. National University of Rosario. Rosario, Argentina. November 7th, 2014. *(Invited Talk)*
— Hoare-Style Reasoning with Algebraic Continuations. Department of Computer Science. National University of Rosario. Rosario, Argentina. November 21st 2013. *(Guest lecture at the Formal Program Development in Type Theory (T-521) course)*

Software Projects & Tools

HTTcc: **Main contributor**. A separation logic for a stateful functional programming language with high order control operators [3]. Developed as a *shallowly-embedded* domain-specific language (DSL) in `Coq/ssReflect`.
`http://delbian.co/HTTcc`

FCSL: **Contributor**. FCSL is the first completely formalized framework for mechanized verification of full functional correctness of fine-grained concurrent programs. It is implemented as an embedded DSL in the dependently-typed language of the `Coq` proof assistant [1,2,5].
`http://software.imdea.org/fcsl/`

Academic Service

External Reviewer: LICS 2015, ICFP 2013, MFCS 2012.

Teaching

Universidad Nacional de Rosario. School of Exact Sciences. Computer Science Department..

Data Structures (T-312): Spring 2007, Fall 2008 : Teacher Assistant (T. A.) to Dr. Pablo Martinez López. Fall 2009 : T. A. to Dr. Mauro Jaskelioff.

Functional Programming (T-321): Spring 2006, Fall 2007 : *Ad Honorem* T. A. to Dr. Pablo Martinez López. Spring 2008 : T. A. to Dr. Pablo Martinez López. Spring 2009 : T. A. to Dr. Mauro Jaskelioff.

Introduction to Category Theory (T-323): Spring 2009 : T. A. to Dr. Gabriela Argiroffo.

Type Systems (T-52x): Fall 2009, Spring 2009, Fall 2010 : T. A. to Dr. Pablo Martinez López.

Languages

Spanish: Mother tongue.

English: Proficient Speaker, CEFR C2.   *Certificates : U. of Cambridge CPE ; U. of Michigan CPE.*

French: Independent Speaker, CEFR B1.   *Certificates : DELF A1.*

References

Dr. Aleksandar Nanevski
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Dr. Ilya Sergey
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