



# Luis Mastrangelo

Software Development Engineer

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📄 [acuarica.gitlab.io/blog/](https://acuarica.gitlab.io/blog/)

## Education

- Apr 2013–June 2019 **Ph.D. Graduate, Computer Science**, *University of Lugano*, Switzerland.  
Programming languages research in Java and Haskell, runtime systems and virtual machines with C++, software verification, data analysis using R and Python.
- Apr 2007–Nov 2011 **Licentiate in Computer Science**, *University of Buenos Aires*, Argentina.  
This degree is considered by many institutions as being equivalent to an M.Sc. degree.
- Apr 2011–Oct 2011 **Internship**, *INRIA/University of Strasbourg*, France.  
Internship title: “A Virtual Machine for Automatic Program Parallelization”.
- Apr 2003–Dec 2006 **Computer Analyst**, *University of Buenos Aires*, Argentina.  
This is a 3 years degree as part of the *Licentiate in Computer Science* programme.
- Mar 1994–Nov 1999 **Secondary School Diploma in Informatics**, Buenos Aires, Argentina.

## Professional Experience

- Current position **Technical Consultant**, *DB&L Services SA*, Lugano, Switzerland.  
Aug 2019–to date IT infrastructure support for Monitoring Operations at Avaloq Sourcing (CH & LI) SA.
- Dec 2006–Mar 2011 **Project Leader**, *Recursiva S.R.L.*, Buenos Aires, Argentina.  
Software engineering and architect roles using Java and C# among others technologies.
- Mar–Jul 2006 **Network Administrator**, *HS Eventos*, Buenos Aires, Argentina.  
Technical service, software installation and maintenance of company network.
- Jul–Oct 2004 **Network Administrator**, *Texpampa*, Buenos Aires, Argentina.  
Technical service, software installation and maintenance of company network.
- Mar 2000–May 2004 **Software Developer**, *Fernando Hermo y Asoc.*, Buenos Aires, Argentina.  
ERP and CRM development using VB 6, SQL Server and Crystal Reports.

## Freelance & Open Source Projects

- Feb 2014–Jan 2020 **Software Developer**, *JNIF*, Lugano, Switzerland.  
Java Native Instrumentation Framework written in C++.
- May–Sep 2018 **Software Developer**, *Essentia, Family Office*, Lugano, Switzerland.  
Desktop application written in Scala.
- May–Jun 2018 **Software Engineer**, *GTM Open Source project (contribution)*, Remote.  
Add support for submodules in Git Time Tracking. Written in Go. [Pull Request](#).
- Oct–Nov 2017 **Software Developer**, *Essentia, Family Office*, Lugano, Switzerland.  
Desktop application written in C#.
- Apr 2016–Oct 2017 **Software Developer**, *HSC*, Remote.  
A Supercompiler prototype for Haskell.

- Dec 2010–Jan 2011 **Web Developer**, *vCelebrate*, Buenos Aires, Argentina.  
Web application using Facebook API and Adobe Flex.
- Apr–Dec 2008 **Full Stack Developer**, *Andrea Importadora*, Buenos Aires, Argentina.  
E-commerce platform using ASP.NET and MySQL.
- Feb–Apr 2006 **Full Stack Developer**, *Reid Systems, ApareSer*, Buenos Aires, Argentina.  
Web application using ASP.NET, C# and SQL Server 2000.
- Apr–Oct 2005 **Full Stack Developer**, *Dream On*, Buenos Aires, Argentina.  
Invoicing desktop application using C# and PostgreSQL.

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## Technical Skills

Languages	Java, Kotlin, Scala, C/C++, C#, Haskell, Python, R, JavaScript/TypeScript, Go, SQL, Bash, PHP, $\text{\LaTeX}$ , UML, LLVM, Perl, VB.NET/6, Assembler, Pascal
Paradigms	OOP, Functional & Logic Programming, Design by Contract, Design Patterns
Fields	Static & Dynamic Program Analysis, Data Science, Mining, Visualization
Databases	Design, Oracle PL/SQL, Datalog/QL, PostgreSQL, MySQL, SQL Server, SQLite
Editors/IDEs	VSCode, IntelliJ/CLion/Rider, Visual Studio.NET, Eclipse, Xcode, Vim/Emacs
SCMs & IT	Git, Subversion, CVS, Linux, Scripting, Virtualization, Samba, Apache, Tomcat

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## Teaching Experience

- Apr 2013–Nov 2017 **Teaching Assistant**, *University of Lugano*, Switzerland. Multiple courses.
- Apr 2006–Nov 2010 **Teaching Assistant**, *University of Buenos Aires*, Argentina. Multiple courses.
- Apr–Oct 2008 **Scientific Popularizer**, *Informatics dept.*, *University of Buenos Aires*, Argentina.

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## Publications

- University of Lugano **Luis Mastrangelo**, Ph.D. Thesis, Advisors: Prof. M. Hauswirth and Prof. N. Nystrom. [When and How Java Developers Give Up Static Type Safety](#). 2019
- University of Lugano **Luis Mastrangelo**, M. Hauswirth and N. Nystrom. [Casting about in the Dark: A Survey of Cast Usage in Java](#). 2019
- University of Lugano **Luis Mastrangelo**, L. Ponzanelli, A. Mocci, M. Lanza, M. Hauswirth and N. Nystrom. [Use at Your Own Risk: The Java Unsafe API in the Wild](#). 2015
- University of Lugano **Luis Mastrangelo** and M. Hauswirth. [JNIF: Java Native Instrumentation Framework](#). 2014
- INRIA/University of Strasbourg A. Jimborean, **Luis Mastrangelo**, V. Loechner and P. Clauss. [VMAD: an Advanced Dynamic Program Analysis & Instrumentation Framework](#). 2012
- INRIA/University of Strasbourg A. Jimborean, P. Clauss, B. Pradelle, **Luis Mastrangelo** and V. Loechner. [Adapting the Polyhedral Model for Efficient Speculative Parallelization](#). 2012

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## Language Proficiency

- Spanish **Native speaker**
- English **Proficient User**: Level C2 under [CEFR](#)
- Italian **Proficient User**: Level C1 under [CEFR](#)
- French **Independent User**: Level B1 under [CEFR](#)