



# 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, Scala 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 **Senior Software Engineering**, *EPAM Systems*, Zurich, Switzerland.  
Software development for Blockchain using Rust and TypeScript, Java and PostgreSQL
- Sep 2020–*to date* **Technical Consultant**, *DB&L Services SA for Avaloq*, Lugano, Switzerland.  
IT infrastructure support for Monitoring Operations at Avaloq Sourcing (CH & LI) SA.
- Aug 2019–Jan 2020 **Project Leader**, *Recursiva S.R.L.*, Buenos Aires, Argentina.  
Software engineering and architect roles using Java and C# among others technologies.
- Dec 2006–Mar 2011 **Network Administrator**, *HS Eventos*, Buenos Aires, Argentina.  
Technical service, software installation and maintenance of company network.
- Mar–Jul 2006 **Network Administrator**, *Texpampa*, Buenos Aires, Argentina.  
Technical service, software installation and maintenance of company network.
- Jul–Oct 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

- Jan–May 2020 **Software Engineer**, *GTM Dashboard Open Source project*, Remote.  
Web dashboard for Git Time Tracking. Written in Go, Rust, TypeScript and Svelte.
- 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	<b>Software Developer</b> , <i>Essentia, Family Office</i> , Lugano, Switzerland. Desktop application written in C#.
Apr 2016–Oct 2017	<b>Software Developer</b> , <i>HSC</i> , Remote. A Supercompiler prototype for Haskell.
Dec 2010–Jan 2011	<b>Web Developer</b> , <i>vCelebrate</i> , Buenos Aires, Argentina. Web application using Facebook API and Adobe Flex.
Apr 2005–Dec 2008	<b>Full Stack Developer</b> , Buenos Aires, Argentina. Several applications using ASP.NET, C#, PostgreSQL, MySQL and SQL Server 2000.

## Technical Skills

Languages	Java, Kotlin, Scala, Rust, JavaScript/TypeScript, C/C++, C#, Haskell, Go, Python, R, SQL, PHP, L <sup>A</sup> T <sub>E</sub> X, 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

## Teaching Experience

Apr 2013–Nov 2017	<b>Teaching Assistant</b> , <i>University of Lugano</i> , Switzerland. Multiple courses.
Apr 2006–Nov 2010	<b>Teaching Assistant</b> , <i>University of Buenos Aires</i> , Argentina. Multiple courses.
Apr–Oct 2008	<b>Scientific Popularizer</b> , <i>Informatics dpt., University of Buenos Aires</i> , Argentina.

## Publications

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

## Language Proficiency

Spanish	<b>Native speaker</b>
English	<b>Proficient User</b> : Level C2 under <a href="#">CEFR</a>
Italian	<b>Proficient User</b> : Level C1 under <a href="#">CEFR</a>
French	<b>Independent User</b> : Level B1 under <a href="#">CEFR</a>