



# 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.  
Ethereum & NEAR blockchains development with Solidity, Rust and TypeScript
- Sep 2020–to date
- Aug 2019–Jan 2020 **Technical Consultant**, *DB&L Services SA for Avaloq*, Lugano, Switzerland.  
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

- 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 **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 2005–Dec 2008 **Full Stack Developer**, Buenos Aires, Argentina.  
Several applications using ASP.NET, C#, PostgreSQL, MySQL and SQL Server 2000.

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## Technical Skills

Languages	Solidity, Blockchain, Ethereum, NEAR, Smart Contracts, Rust, Java, Kotlin, Scala, JavaScript/TypeScript, C/C++, C#, Haskell, Go, Python, R, SQL, UML
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	<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>