



Luis Mastrangelo

Software Development Engineer

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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	Software Developer , <i>Essentia, Family Office</i> , Lugano, Switzerland. Desktop application written in C#.
Apr 2016–Oct 2017	Software Developer , <i>HSC</i> , Remote. A Supercompiler prototype for Haskell.
Dec 2010–Jan 2011	Web Developer , <i>vCelebrate</i> , 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.

Technical Skills

Languages	Solidity, Blockchain, Smart Contracts, Java, Kotlin, Scala, Rust, JavaScript/TypeScript, C/C++, C#, Haskell, Go, Python, R, SQL, PHP, UML, Perl
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	Teaching Assistant , <i>University of Lugano</i> , Switzerland. Multiple courses.
Apr 2006–Nov 2010	Teaching Assistant , <i>University of Buenos Aires</i> , Argentina. Multiple courses.
Apr–Oct 2008	Scientific Popularizer , <i>Informatics dpt., University of Buenos Aires</i> , Argentina.

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

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