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 Sep 2020–*to date*	**Senior Software Engineering**, *EPAM Systems*, Zurich, Switzerland. Software development using Java and PostgreSQL among other technologies
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.

Technical Skills

Languages	Java, Kotlin, Scala, Rust, JavaScript/TypeScript, C/C++, C#, Haskell, Go, Python, R, SQL, PHP, 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

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 dpt., University of Buenos Aires*, 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