

Mario Ruggier - Curriculum Vitae

INTERNET APPLICATIONS & INFORMATION ARCHITECTURE

Personal Details

Name Mario Ruggier
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Nationalities Maltese, Canadian
Languages Maltese, English, French, Italian

Summary

Over 20 years of IT experience encompassing skills necessary to conceive and build multi-tier Internet Applications from front to back, rounded with supporting skills that include: Information Architecture; Documentation Engineering; Software Design and Development; Agile Development Methodologies; User Driven Design; Monitoring of Technology Trends; Mentoring and Team Management; Technical Support; Teaching and Writing.

Computer Skills

- Web server programming with Python, Perl, Java, JavaScript, XML, XSLT, ASP, JSP and Java Servlets, on various web (e.g. IIS, Apache, Nginx, lighttpd) and application servers and environments (e.g. Pyramid, Zope, Java Servlets, JSP).
- Web interface/client programming with HTML/XHTML, CSS, JavaScript and libraries such as Backbone.js, Ember.js, jQuery, Dojo Toolkit, MochiKit, Flash and ActionScript.
- Programming experience with Python, Perl, Java, C/C++, Fortran, Awk, Lisp, Pascal, SQL on Solaris, Linux, Windows, and OS X environments.
- Software Configuration Management using Git, Mercurial, Subversion, Clearcase and CVS version control systems, with or without Integrated Project Management systems such as Trac.
- Database experience with MySQL, PostgreSQL, MS SQL 2000 relational database servers, as well as NoSQL and (Python) Object-Oriented databases.
- Analysis and design with ERD and UML. Software engineering experience with various agile methodologies, ranging from XP (eXtreme Programming) and TDD (Test-Driven Development), to the more formal PSS-05 standards from ESA (European Space Agency).
- Document template design, Simultaneous publishing, from a single source to multiple formats; Expert knowledge of the Adobe FrameMaker technical publishing system.

People Skills

Mediation of ideas between users, developers and management. Listening to different points of views. Syndication of a project's requirements from the various concerned parties. Integrate into a disparate group easily, and tend to get along very well with everyone. Affinity for attention and detail, and for recognizing contributions from others. Imaginative, visual, logical.

2010–2013 UN/DESA Nairobi, Information System Architect & Developer

Inherited, as lead architect and developer, the codebase of the core engine of the Bungeni Parliamentary and Legislative Information System, a sophisticated document workflow system that offers a digital modeling and full traceability of the Parliamentary process and all its data. Bungeni is an ongoing open-source development initiative of the *Africa i-Parliament Action Plan* programme of UN/DESA, and is built primarily on the Zope3 application server and the SQLAlchemy object-relational mapper. Transformed the Bungeni Portal core system to a *configuration-driven declarative* architecture, enabling another level of capability, flexibility, consistence and stability, taking it from simply being a somewhat "parametrizable legislative system" to being a "framework for defining legislative systems". Restructured the system implementation along *conceptual feature* lines rather than along *concrete type* lines, opening up for more re-usable system building blocks and further facilitating flexibility and configuration. Elaborated the development practices and culture of the development team, with provision of guidelines for improved processes, development recommendations and best practices, resulting in considerable reversal of code entropy accumulated in preceding years.
Supervisor: Flavio Zeni.

2007–2010 United Nations Geneva, Consultant

■ ITC, System Architect & Developer, Feb 2009–Feb 2010

Lead Architect and Developer of the LoanCom family of applications (the International Trade Centre's "*Loan for Competence*" online decision support system for financial institutions who lend to SMEs), working with a team of 7 other advisors and developers. The *LoanCom Platform* is comprised of a client/server meta tool *LoanCom Designer*, to be used by ITC for generating and managing a custom online *LoanCom Application* for each client bank—each being a tailored stand-alone risk assessment tool, installed on the bank's IT laptops and infrastructure, to help the bank better evaluate the real potential of SMEs applying for a loan. Each custom *LoanCom Application*, as well as the companion data per SME applying for a loan, are defined and persisted in the dedicated *LoanCom Markup Language XML Schema*, with the simple XML data files being easy to share and integrate into the, often small and rural, bank IT infrastructure. Other technologies used included Adobe AIR (RIA for the Desktop), the Python/Pylons open-source web framework and the SQLAlchemy object-relational mapper.
Supervisor: Roger Megelas.

■ UNOG, System Architect & Developer, Apr 2008–Oct 2008

Architect, Design, Implement (on Adobe Flex RIA technology) and Deploy the *Berncard Management System* as a Rich Internet Application to satisfy new requirements from the Swiss Mission for how all *Cartes de Légitimations* are to be managed e.g. required data to be collected, historical trace of all issued cards, automated data transfer to Swiss Mission servers via XML, etc. The system is successfully deployed and in production at UNOG, making UNOG the first organization to meet the new requirements from the Swiss Mission regarding how all *Cartes de Légitimations* should be managed. Supervisor: Jao Ratsifandrihamanana.

■ UNECE, Information System Architect, Feb 2007–Jan 2008

Analyse, Design, prepare the Technical Specification and Prototype the web-based Customer Relationship and Meeting Management System (CRAMMS) as the comprehensive tool for managing UNECE meetings and conferences, to supersede UNECE's current *Contacts Database* limited internal tool. Involved extensive user interviews, identification of Use Cases, compilation of User Requirements, proposal of various implementation scenarios, plus prototyping the 3 major components of the system (namely the intranet, the authenticated web portal, and the public web information architecture). Supervisor: Frank Moser.

2003–2007 Independent Internet Applications Consultant

Working privately since 2003, building web applications using primarily OSS (Open Source Software) technologies. Projects include: a database driven web application for dynamic analysis of historical sports data; a fund management system with a web interface supporting multiple user accounts and multiple investments; an extranet application allowing simple management and sharing of documents; deployment (linux/debian) of an open-source ERP (Enterprise Resource Planning) for a medium-sized company, covering purchasing and inventory management.

2001–2003 SoftPlumbers SA, Web Interface Architecture, Management & Development

Web architect for Geneva-based startup Softplumbers SA, a 25 person start-up created in Dec 2000, that develops a standards-based distributed application for management of IT infrastructures, with a full web interface, and XML-based communication. My responsibilities included: (a) participation in the design of the user interface, (b) define an implementation architecture, (c) identify and specify components and support libraries, and interaction between them, both client-side and server-side, (d) manage/execute the implementation. Main technologies used are DHTML, CSS, JavaScript, Flash and ActionScript, Python, XML, XSL, IIS, ASP, SQL Server 2000, CIM Operations, Clearcase, Together. *Supervisor: Alberto di Meglio.*

1993–2000 European Laboratory for Particle Physics (CERN)

■ Analysis, Design & Implementation

2000 YaPPI, Yet another Particle Property Interface. An XML/Java particle database.

1999–2000 OverSite, tool to implement and maintain a web site architecture, for Dreamweaver.

1995 Electronic customer mail management support system, based on mh mail.

1994 Various early Web-related projects: WebLinker, a management tool for WWW cross references; WebMaker, a generic FrameMaker to WWW translator; Configuration of the Grif SGML editor for structured Web/HTML editing.

1993–1995 Documentation systems, with automatic multiple formats from single-source.

1993 Port of the unix-based ADAMO System to Windows.

■ Information Design

1999–2000 OverSite Look&Feels, templates for technical web sites.

1997 Design of the WWW interface to LIGHT/OO, a seamless WWW hypertext of project source code (C++, Java) and documents.

1996 Design of a suite of posters for the ATLAS high-energy physics experiment collaboration.

1995–1999 FrameMaker template packages: Software Documentation, User Guide, Technical Design Report, PSS-05 Software Engineering Standards. Each template package supports multi-authoring, and automatic conversion to WWW.

1993 An exploratory pilot hypertext issue of the Electronic Journal of Physics, from sources that included TeX, Mathematica and FrameMaker.

■ Documentation

1996 Specification of the ATLAS Software Development Environment.

1994–1999 Design, authoring, management of Web Sites, for OverSite, WebMaker, IPT, CERN School of Computing for 1995, 1996, 1997, 1998.

1993–2000 User Documentation, e.g. for WebMaker (100 pages) and the ADAMO (240 pages).

■ Teaching & Technical Support

1995–2000 Training and first-line support for FrameMaker and WebMaker.

1995 Comprehensive introductory course (4 lectures, May 2-5) on the World-Wide Web, for physics students at the University of Bologna.

Supervisors: Paolo Palazzi 1993–1997, Gottfried Kellner 1998–2000.

Earlier Experience

- 1989–1992 Teaching Assistant, Simon Fraser University, Vancouver, Canada.
- 1985–1986 Student Work Term (Dbase/SQL), Air Traffic Services, Transport Canada.

Education

- B.A. (Performing Arts), 1991. Simon Fraser University, Vancouver, Canada.
- B.Sc. (Mathematics), 1988. Simon Fraser University, Vancouver, Canada.

Other Activities

Founder and director (and primary teacher) of the non-profit Patamango Association for Argentine Tango, in Nairobi Kenya, from 2010 to date. • President of the CERN FC, an amateur football club with more than 200 members (resigned in 2000, due to leaving CERN).

• Active football referee of the Fédération Française de Football since 1999, for the District de la Haute-Savoie. • Run my first marathon in March 2001 in Rome, and to this day I have run a total of 25.