

Mario Ruggier - Curriculum Vitae

INTERNET APPLICATIONS & INFORMATION ARCHITECTURE

Personal Details

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Summary

Working privately since 2003, building web applications using primarily OSS technologies, in particular a fund management system and a web-based platform for dynamic analysis of historical sports data. From February 2001 to 2003, I have worked as web architect for the SoftPlumbers SA start-up company, in Geneva, Switzerland, that develops a web-based management system for Windows-based IT infrastructures. Previously, and since November 1992, I worked at CERN, the European Laboratory for Particle Physics, in Geneva, where I followed closely the evolution of the WWW. At CERN I was a member of the Information and Programming Techniques (IPT) within the IT Division, where my main activities were documentation engineering, software design and development, monitoring of technology trends, support, teaching and writing.

Computer Skills

I have a varied technical background, with skills that encompass Information Architecture, Web User Interfaces, Development of Web Software Applications, User Interface Usability, and Documentation Management. In particular: Web interface/client programming with HTML/XHTML, CSS, JavaScript and libraries such as MochiKit, Flash and ActionScript; Web server programming with Python, Perl, Java, JavaScript, XML, XSLT, ASP, JSP and Java Servlets, on various web (IIS, Apache) and application servers; General programming experience with Python, Perl, Java, C/C++, Fortran, Awk, Lisp, Pascal, SQL on Solaris, Linux, Windows, and OS X environments, using CVS, Subversion and Clearcase. Experience with MySQL, PostgreSQL, MS SQL 2000 relational database servers, as well as Python OO databases; Analysis and design with ERD and UML; Software engineering experience with various methodologies, ranging from Extreme Programming and test-driven design, to the more formal PSS-05 standards from ESA; Expert knowledge of the WWW; 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.

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 and development

Web architect for Softplumbers SA, a start-up created in Dec 2000 and growing to about 25 employees. SoftPlumbers develops a management suite for Windows-based IT infrastructures, with a full web interface, based on the CIM (Common Information Model), WBEM (Web-Based Enterprise Management) and XML standards. Functionality includes Directory-based Services, Software Deployment, Alert Monitoring and Resolution, Performance Monitoring, Network Discovery, Inventory and Reports.

The extensive graphical web interface consists of a dozen interface modules made up of client-side presentation and behavioural logic, and server-side business logic. All interface modules share the same sophisticated page components, e.g. Tree, List, Form components, and server-side support libraries, specifically the XML-based communications and data handling layer.

My responsibilities at SoftPlumbers have been to (a) participate 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 the implementation, and (e) implement a number of specific interface modules, shared client-side page components and server-side support libraries. Main technologies used are DHTML, CSS, JavaScript, Flash and ActionScript, Python, XML, XSL, IIS, ASP, SQL Server 2000, CIM Operations, Clearcase, Together.

1993–2000 European Laboratory for Particle Physics (CERN)

- Analysis, Design & Implementation

2000 YaPPI, Yet another Particle Property Interface

YaPPI is an XML database of particle properties, accessible through a Java API, used by two applications – a servlet, for human browsing, and integrated into the Java Analysis Studio. Participated in the development, documentation and refinement of the project.

1999-2000 OverSite, tool to implement and maintain a web site architecture

Conceived and implemented an extension to Macromedia Dreamweaver, to enable the webmaster to explicitly define a logical site hierarchy, and to use that information to automatically manage context-sensitive navigation schemes. The tool supports exchangeable Look&Feels, as well as a simple CGI framework, OverSiteList, for managing list-based dynamic information collections.

1995 Electronic customer support system

Implemented a customer mail management system based on mh mail client and connectivity scripts with the WWW, for WebMaker customer support. Features included automatic message filing, customer database management, and a WWW interface.

1994 Various early Web-related projects

- WebLinker, a management tool for WWW cross references: Co-designed and specified the requirements of WebLinker, a tool to manage links in large WWW infrastructures.
- WebMaker, a generic FrameMaker to WWW translator: Co-designed the popular WebMaker system. Co-authored the URD, SRD, and AD documents. Co-developed the graphics conversion module and the configuration tool.
- Configuration of the Grif SGML editor for WWW: Developed prototypes of the required configuration schemas for an early DTD of HTML to make the Grif SGML editor usable as a structured HTML editor.

1993–1995 Automatic documentation systems

Co-developed automatic documentation systems built around FrameMaker and translators

between several document formats, including print, online help and WWW hypertexts.

1993 Port of the unix-based ADAMO System to Windows

ADAMO is a data system for scientific programming based on the Entity-Relationship (ER) model, developed in Fortran and C. Used extensively by physicists for analysis programming, it provides for the definition of tabular data structures and for their manipulation from Fortran or from C. Ported the system from Unix to the Windows 3.1 environment.

■ Information Design

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

As part of the OverSite project, designed and implemented comprehensive web site templates, or Look&Feels, that include page layout templates, style sheets, and site-wide navigation schemes. Examples of sites deployed with OverSite Look&Feels are PST, IT DB Group, SDT.

1997 Design of the WWW interface to LIGHT/OO

LIGHT/OO provides structured browsability of the documents of an Object-Oriented project, i.e. the source code (supports C++, Java) and related documentation, as one seamless WWW hypertext. The interface consists of a set of web page templates which determine the coherence and usability of the hyperised representation of the source code and documentation.

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

Designed a collection of 24 A0 posters and 4 banners providing an overview of all technical aspects of ATLAS. Posters have been mass printed and distributed throughout the institutes within the ATLAS collaboration.

1995-1999 FrameMaker template packages

Designed, implemented and supported FrameMaker book template sets created for various documentation domains. Each template set supports multi-authoring, automatic conversion to WWW as structured webs in HTML, and includes comprehensive user documentation. Specifically, template sets for Software Documentation (technical reference documentation), User Guide (end user documentation), Technical Design Report (up to 1000 page-long technical reports) and for documents required by the ESA (European Space Agency) PSS-05 software engineering standards.

1993 A pilot issue of the Electronic Journal of Physics

An exploration and production of a demo issue of a hypertext journal of physics for WWW. The purpose was to show the functionality of a first set of technical articles in electronic form. The source formats were TeX, Mathematica and FrameMaker.

■ Documentation

1996 Specification of the ATLAS Software Development Environment

Was responsible for the specification of all requirements concerning documentation within the ATLAS Software Development Environment. These requirements are included in the resulting User Requirements Document that specifies the entire development environment.

1994-1999 Management of Web Sites

Designed, authored and maintained several webs, including those for OverSite, WebMaker, IPT, CERN School of Computing for 1995, 1996, 1997, 1998.

1993-2003 Scientific Papers and User Documentation

See my [Publications](#). User manuals include those for WebMaker (100 pages) and the ADAMO Users Guide (240 pages).

■ Teaching & Customer Support

1995-2000 WebMaker and FrameMaker Support

Responsible for the internal help desk providing first-line FrameMaker support at CERN (FrameMaker specialist at CERN), as well as for providing support via email to WebMaker users at CERN and around the world. Prepared and delivered hands-on training courses on the use of FrameMaker and the CERN template packages, and on using WebMaker for converting documents to the WWW.

1995 WWW for Physics

Preparation of a comprehensive introductory course (4 lectures) about the World-Wide Web, for physics students at the University of Bologna, delivered on May 2 to 5, 1995, in Bologna. Topics included hypertext, HTML, HTTP, publishing, tools, converters, and CGI.

Earlier Experience

1989-1992 Teaching Assistant, SFU - Simon Fraser University, Vancouver, Canada

Teaching Assistant for the first and second year undergraduate calculus and linear algebra courses. Organised review sessions for the preparation of large classes of mathematics majors for term exams, maintained student records database and marked exams.

1985-1986 Student Work Term, Air Traffic Services, Transport Canada

Developed a Flight Service Station workload assessment program for the Pacific Region using Dbase III and SQL in a PC environment.

Education

B.Sc. (Mathematics), 1988

Simon Fraser University, Burnaby, British Columbia, Canada.

B.A. (Performing Arts), 1991

Simon Fraser University, Burnaby, British Columbia, Canada.

Other Activities

President of the CERN Football Club, an amateur club with more than 200 members (resigned in 2000, due to leaving CERN). Since 1999, I am an active football referee of the Fédération Française de Football, for the District de la Haute-Savoie. I have run my first marathon in March 2001 in Rome, and to this day I have run a total of 16.

URL References

SoftPlumbers SA <http://www.softplumbers.com/>

YaPPI <http://java.freehep.org/yappi/>

DocSys <http://www.cern.ch/docsys/>

FrameMaker at CERN <http://framemaker.cern.ch/>

Project Support Team (PST) <http://pst.cern.ch/>

IT Database Group (IT-DB) <http://wwwinfo.cern.ch/db/>

LIGHT <http://light.cern.ch/>

SDT Service <http://www.cern.ch/sdt/>

IT IPT Group <http://www.cern.ch/IPT/>

IT API Group <http://wwwinfo.cern.ch/api/>

CERN School of Computing <http://www.cern.ch/CSC/>

CERN Football Club Timeline <http://cern.ch/club-football/thepast.html>

ATLAS Posters <http://atlasinfo.cern.ch/Atlas/documentation/poster/HTML/>

CERN WebMaker <http://www.cern.ch/WebMaker/>

Explorator (1993) <http://www.cern.ch/Explorator/Explorator.html>

ADAMO User's Guide (1993) <http://www.cern.ch/Adamo/guide/Document.html>