

Michel Rodriguez

Consultant, Perl and XML
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I am a **Perl developer**.

My main area of expertise is XML, but I also work with all sorts of other types of data. I can offer a wide range of services, from **data conversion**, **data cleanup**, data enhancements through **machine learning** to **web scraping** and full-fledged **SaaS**.

In 20 years of work with Perl I have talked at numerous Perl conferences, taught the Perl & XML class at the O'Reilly Perl University and I am the author of a few CPAN modules, most notably [XML::Twig](#).

Recent Projects

- **SaaS**: management tool for the network of external experts for a consulting firm, with full-text search of documents in various formats, email alerts...
stack: linux, apache + starman, dancer2, perl, DBIx::Class, postgresql, bootstrap, jquery, postmark
challenges: deal with a range of document formats, including linkedIn profiles, manage SaaS
- **Request Tracker (RT)** for Best Practical Solutions: development of RT 5. New features, "coring" existing extensions, integration with external services, custom development for clients, support.
stack: linux, perl, mason, DBIx::SearchBuilder
challenges: dealing with an existing complex software, understanding customers requirements
- **XML Quality Checking Tool**: automatic, rule-based, checking of XML: numbering, structure restrictions, style rules... creation of custom rules, visualization of error context
stack: linux, apache + starman, dancer2, perl, SQLite
challenges: allow easy creation of new rules, report problems in an helpful way
- **Machine Learning**: categorization of tenders, assigning a CPV (*Common Procurement Vocabulary*) code based on their title (in French). Implemented as a micro service returning JSON
stack: linux, perl, TensorFlow, grocery, starman, Lingua::Stem, dancer2
challenges: obtain training data, monitor and adjust the system behaviour
- **Web Scraping**: scraping of a range of public websites to feed a search engine
stack: linux, perl, phantomJS/CasperJS, SQLite
challenges: add structure to the data, monitor activity to detect changes in websites structure
- **mif2mml**: tool converting FrameMaker's MIF equations into MathML ([github repository](#)).
stack: perl, Parse::RecDescent, XML::Twig
challenges: cover the entire MIF specification, based on Adobe's docs.
- **Open Source**: creator of the XML::Twig Perl module, widely used to process XML data in Perl
challenges: make sure the module installs and passes the tests on a wide variety of configuration, answer questions about it and general proselitism about the module
- **XML expert** for the IEEE Standards Department: adaptation of the STS DTD to IEEE standards
challenge: making sure all of the data structure was captured by the JATS based DTD.

Education:

1987: Degree in Computer Science from ENSEEIHT (Ecole Nationale Supérieure d'Electronique, Electrotechnique, Informatique et Hydraulique de Toulouse), equivalent to a Masters Degree.

Skills

Programming Languages

Perl, Javascript, C.

DBMS

PostgreSQL, SQLite, Oracle, MySQL, SGML/Store.

Web

Apache, CSS, JavaScript, JQuery, PhantomJS, Puppeteer, Bootstrap, Dancer2, Web Scraping.

Operating Systems

Unix: mostly **Linux**.

Other

Revision control tools (**git**), Quality Assurance, Artificial Intelligence (**Machine Learning**).

SGML/XML

XML modeling, conversion to XML, XML conversion to HTML, style sheet development, SGML databases, XML data processing.

Languages

French (mother tongue), English (fluent), Italian (spoken), Spanish (spoken).

Past Positions

2000-2022

Consultant, Perl & XML

1996-2000

Senior Programmer-Analyst for the IEEE (Institute for Electrical & Electronics Engineer), Standards.

1992-1996

Member of a group that provided SGML expertise to the Technical Publication Direction of Aerospatiale (now part of Airbus), in Toulouse (France): SGML related studies and prototypes

1989-1992

Quality Assurance for the SMART project (250 man x year) for Airbus, in Toulouse (France).

1988

Artificial Intelligence expert for the Meteosat Operations Department of ESA (European Space Agency) in Darmstadt, Germany. Real-time expert system for fault detection and recovery.