

# Marcel Quirijnen | Sr. Software Engineer Back-end / Full Stack

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## SUMMARY - PROFILE

- \* Expertise : (Unix/Linux/Web) application development and workflow automation using today's open source LAMP stack and DevOps tools
- \* I have a can-do attitude and the ability to be hands on, mentor and work collaboratively and autonomously.
- \* I try to be solution oriented with team members, stakeholders, and other applicable team members by continuously creating value
- \* I am visible and available to team members who require support by understanding the tech and business requirements
- \* Self-motivated and continuously learning new technologies to find the best solutions for all aspects of the businesses needs
- \* Code samples : <https://bitbucket.org/sugarcreek>

Overall IT experience (mostly Unix/Linux, some MAC OS)	20 years
Technical Project Management/Team Lead	4 years
Unix system administration (SGI, HP, Sun, Linux)	8 years
Automation and monitoring (Nagios)	3 years
C (system) programming	12 years
Perl programming (incl. mod_perl)	16 years
MySQL, Oracle, PostgreSQL	12 years
PHP Programming (incl. Slim2 & Laravel5 frameworks)	12 years
Python programming (incl. Flask framework)	5 years
AJAX, JQuery, Vue, AngularJS	6 years
Git/Subversion	8 years
Ansible, Vagrant, Jenkins, Jira	2 years

## WORK EXPERIENCE

### 01/2021 - : Federal Reserve Bank of St.Louis, MO

*Sr. Web Developer - Research Web Group Division - FRED Team (Full time, 100% remote)*

#### Responsibilities :

As a member of the FRED-Team, maintain, improve and secure the FRED-family of websites related to economics data (<https://fred.stlouisfed.org>)

#### Used skills and tools :

PHP, JQuery, Git, Gitlab CI, PostgreSQL, Docker, ElasticSearch, Codeception, AWS

#### Platforms :

Windows 10, Red Hat 7 Enterprise, MAC OSX

### 04/2019 - 11/2020 : Wells Fargo Network Security - Charleston, SC

*(Perl)Web Developer V / ESPA Team Lead (Full time, 100% remote)*

#### Responsibilities :

Develop web-based endpoint security solutions focused on network authentication protocol 802.1x using tools like Perl, AngularJS, ROSE ORM, Jira and rpmbuild

#### Used skills and tools :

Perl, ROSE ORM, AngularJS, JSON, JQuery, SubVersion, MySQL, ActiveMQ, IBM MQSeries, Jenkins, uDeploy, Jira, Crucible, Confluence, rpmbuild and Nagios

#### Platforms :

Windows 10, Red Hat 7 Enterprise

### 03/2018 - 03/2019: PAM Transport - Tontitown, AR

*Full Stack Web Developer (Full time, on-site)*

#### Responsibilities :

Develop web-based tools to support the transportation industry with their training requirements, scheduling needs and carrier and load brokerage services.

#### Accomplishments :

\* Created a daily 'Power Only' Load Board, showing available loads per state, send out to subscribed carriers using the Elastic Email API, datamaps and VueJS

Used skills and tools :  
PHP, Laravel5, Vue2.js, Yarn, Webpack, JSON, JQuery, NginX, GitLab, DB2, MySQL, VirtualBox, Vagrant, Jenkins

Platforms :  
Windows 7 Pro, Ubuntu Linux, VirtualBox Linux dev environment, AS400

### **08/2017 - 02/2018 : Educational months - DevOps StaQ, LLC - Yellville, AR**

*Self education*

#### **Responsibilities :**

Took a 6 months sabbatical to re-educate/update my skillset on the complete DevOps & Deployment Technologies stack, as well as NodeJS, Python and Flask.

Worked with Jenkins, Ansible, Docker and AWS CLI, CodeDeploy and CodePipeline.

#### **Learning projects ([bitbucket repo](#)):**

- Collect project ideas : RESTfull services using NodeJS and MongoDB
- Creating an item store : RESTfull API using Flask, FlaskRestful and SQLAlchemy
- Python solution to a Chess problem, including module tests
- Java implementation to handle large data query results (50+ million records), including code testing and Jenkins CI/CD automation.
- Ansible playbooks

### **03/2016 - 07/2017 : Optanix, Inc., Syracuse, NY**

*Sr. Developer - DevTools and Automation (Full time, 100% remote)*

#### **Responsibilities :**

*As a member of the Rapid Innovation Team, I contributed to the further development of the Optanix SAAS platform using today's LAMP stack of tools and virtualization technologies.*

*As a SSE I assisted the PM with picking next sprint objectives for Perl back-end tasks*

*Acted as the PM backup for daily standup meetings (Agile PM)*

*Contributed to the initial development of an HTTP Poller endpoint service using Tornado asynchronous python framework, together with RabbitMQ as its messaging system.*

#### **Accomplishments :**

- \* Improvement and extension of HealthCheck Indicators for network appliances for a variety of Fortune 500 customers.
- \* Automated builds of Ubuntu installation packages using Jenkins
- \* Had a Perl mentoring role and provided a webex talk on Perl best practices.
- \* Ported Perl network library modules to Ruby Gems.

#### **Used skills and tools :**

Python 3, Perl, PHP, Ruby on Rails, C, shell scripts, Yii PHP Framework, JQuery, Apache, Git, ZeroMQ, VirtualBox, Docker, Jenkins, SonarQube, JIRA

#### **Platforms :**

Ubuntu Linux

### **01/2015 - 10/2015 : JMA Information Technology, Overland Park, KS**

*PHP Back-end Developer (1099 contract, 100% remote)*

#### **Responsibilities :**

*Contributing to the creation of a network data portal for Verizon.*

- Created User Management system, complete with Role assignment, password management and activation/confirmation emails
- Creation of a network validation script that checks for network configuration issues like overlapping subnets, conflicting IP's and unreachable subnets.

#### **Accomplishments :**

- \* Have the data application go live on time and on budget after a major setback.
- \* Proof of compliancy with Verizon's Network Security Design Guidelines
- \* Setting up a RedHat failover architecture with load balancing and email services

#### **Used skills and tools :**

PHP, Twig, Slim PHP framework, AngularJS, Apache, Git/BitBucket, Nginx, Agile development, MySQL with master/slave replication, shell scripting

#### **Platforms :**

Redhat Linux in VMWare environment

**05/2011 - 12/2014 : Arkansas Blue Cross & Blue Shield, Little Rock, AR**

*PHP Back-end Web Developer (Full time, 80% remote)*

**Responsibilities :**

Development a Paperless Workflow & Electronic Routing System in a PHP Linux environment. The web-based application enhances the processing of healthcare claims in AR, LA, MS, NM, RI, OK and MO and ties in to various enterprise technologies (Microsoft .net services, IBM Mainframe, proprietary claims applications).

Required understanding of HIPAA regulations and how it impacts applications and data

**Accomplishments :**

- \* Implemented web based claims processing services using XML and WSDL documents using SOAP protocol to communicate with mainframe and MS-based systems.

**Used skills and tools :**

PHP, MySQL, Apache, SSL, JQuery, WSDL, SOAP, XML, JSON, Subversion(SVN), Zend Guard and bash shell scripting

**Platforms :**

AIX Unix, Redhat Linux

**10/2008 - 05/2011 : The Daily Record, Inc., Little Rock, AR**

*Sr. Open Technology Engineer (Full time)*

**Responsibilities :**

- \* Setup and maintain Linux based servers used as backbone systems for newspaper data
- \* Setup in-house hosting of mail server using Bind9/tinyDNS, Postfix, Dovecot, MySQL, Horde groupware/webmail and staying current with whitelists and blacklists filters
- \* Virtualized servers with VirtualBox and/or VMware ESXi using OpenFiler
- \* Upgrade current web applications to be Web 2.0 look & feel using CodeIgniter, Ajax and XML output formats for Adobe publishing software.
- \* Monitoring DMZ servers using MRTG, Snort IDS and AWstats reporting
- \* Setup contingency plan with daily offsite data updates

**Accomplishments :**

- \* Saved \$50K+/yr on hardware update expenses thanks to virtualization
- \* Implemented an automated contingency plan (after bad weather and theft experiences)
- \* Decreased legal liabilities with in-house email hosting

**Used skills and tools :**

PHP, C, CodeIgnitor MVC Framework, MySQL, Apache, Ajax using Dojo/YUI/DhtmlXSuite, XML, Perl and shell scripting, C, Postfix, Dovecot, Horde groupware, SpamAssassin, MRTG, Nagios & Cacti, VirtualBox, ESXi, Bind9, OpenFiler, RAID disks

**Platforms :**

Debian Linux, MAC OS X

**07/2006 - 04/2008: ValueClick Media, Santa Barbara, CA**

*Perl Software Engineer (Full time)*

**Responsibilities :**

Developing web tools to connect advertisers and publishers and assist them to improve their internet advertising targets.

**Accomplishment :**

Created tools to enable video advertising. First in the US.

**Used skills and tools :**

Perl, mod\_perl, MySQL, Apache, Mason, Catalyst, DBIx::Class, Perforce

**Platforms :**

Linux (CentOS, Redhat)

**05/2005 - 07/2006 : Vonage, Holmdel, NJ**

*Call Processing/VOIP Engineer (Pre-IPO, full time)*

**Responsibilities :**

Develop a set of tools (Perl + Expect, PHP, shell) to support production monitoring and call processing.

**Used skills and tools :**

SSH, SSL, Perl, Expect, MySQL, SIP, Shell scripting, PHP, C, Nagios & Cacti

**Platforms :**

Redhat Linux, CentOS Linux

**Accomplishments :**

Significantly increase Vonage SIP IQ by an improvement of production monitoring, detection and reporting of anomalies using my tools. Thanks to this the production

environment was turned into a well managed and reliable SIP network as we know it today.

## **02/2004 - 04/2005 : Exxon Mobil Research & Engineering, Clinton, NJ**

*Unix/Linux System Administration & Scientific Application Support (W2 contract)*

### **Responsibilities :**

- \* Unix/Linux System Configuration & Administration
- \* Setup & maintain a Linux Beowolf Cluster with 58 nodes running PBS queuing system, 4 nodes with graphic capabilities
- \* Install, Upgrade, Patch Unix/Linux systems through makefiles, yum and rpm
- \* Configure non-modular kernels from scratch
- \* Install & Config Scientific Applications (Matlab, Star-cd, NMR,...)
- \* Develop & maintain Unix automation scripts (Perl, Python, sh, bash, C)

### **Used skills and tools :**

SSH, SSL, Perl, Python, C/C++, R, Tk, Yum, rpmbuild, PowerBroker, Remedy ticketing, Shell scripting, Apache2, Tomcat5, XWin32, Exceed, Arkeia backup, Veritas Netbackup

### **Platforms :**

RedHat Linux 7/9/Enterprise, SGI, HP, AIX, SUN Solaris, SUN OS, WinNT

## **1996 - 07/2003 : Johnson & Johnson Pharmaceutical Research Institute (PRI), Belgium Europe**

*Software Engineer Scientific Applications - ChemInformatics (Full time)*

### **Responsibilities :**

- \* Team Lead ChemInformatics R&D software development using Perl, Oracle and Apache
- \* Project Management scientific programming team (3 people).  
Multi-lingual presentations for scientific audiences in France, Spain, Belgium, Germany and USA.
- \* Oracle v7, v8, 8i DBA.
- \* Nominated for innovative IT use in a pharmaceutical R&D environment.

### **Accomplishment :**

- \* Automated the NMR R&D lab, i.e. gather data from real time experiments, retrieve archived data from Oracle databases & flatfiles on different platforms (HP-UX, SGI, NT, Vax) and present the results in a usable form to the NMR scientists. This automation package is currently used by JNJ Spain, France and Belgium and consists of Unix shell scripts, Bruker-NMR macros, C and Pro-C routines.
- \* Created a greater visibility of the Discovery Department, leading to a major increase of compound selection business enterprise-wide and a job offer for me to join the PRI ChemInformatics department in Raritan, NJ or La Jolla, CA USA.

### **Used skills and tools :**

3rd party ChemInformatics software (MSI, Daylight, BCI) & chemistry file formats (MDL, SD, TDT, SMI), Perl, Python, Tk/Tcl, C/C++ programming language, Shell scripting, Web technology, JavaScript, cgi-bin, SSL, MS-Project, Oracle DBA/Developer skills (SQL\*Loader, SQL\*Net, SQL\*Plus, PL/SQL), Unix & Linux admin

### **Platforms :**

SGI Irix, Sun OS, Sun Solaris, HP UX, SuSe and Red Hat Linux

## **EDUCATION**

MS Computer Sciences, LUC university Belgium

BS Information Technology & Programming, HORITO College Belgium

BS Industrial/Power Electronics, HORITO College Belgium

### **Independent courses (I can't say No to free/cheap education):**

Business Innovation	(University of Maryland)
Interactive Programming in Python	(Rice University)
Startup Engineering	(Stanford University)
Project Management	(Udemy, prepping for PMP exam)
Computing for Data Analysis (R)	(Bloomberg School of Public Health)
AWS certified developer	(Linux Academy, <b>NOT</b> certified)
Coding for Entrepreneurs (Django)	(Udemy)

### **On and off working on :**

The Complete DevOps & Deployment Technologies Bundle  
Automation with AWS  
Spanish language