

Nathan Bijnsens

INTRODUCTION

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I am Nathan Bijnsens, a developer with a passion for great code, the web and big data. I am interested in programming and system administration, especially where they meet, from scaling platforms to designing the architecture of new and existing products and everything in between.

I am shifting my focus more to data analysis in a big data world, I regularly use Hadoop and Hbase, in combination with Pig and Hive. Most of my experience is at the infrastructure side, but I am learning more about Business Intelligence and visualizing big data. I follow the rise of real-time big data closely, actively developing applications on top of Storm.

I have a lot of experience with PHP and related technologies like MySQL, nosql, memcached, nginx and a lot more. I strongly believe in unit tests and design patterns, to write precise and easy maintainable code that works.

I am a passionate linux system engineer, follower of the devops movement. Using Puppet and Ganglia to automate and monitor deployments.

I am inquisitive, I love learning about new things and improving what I know. I am very passionate about what I do, and I have strong analytical skills.

EXPERIENCE

As from April 2012 I work for **DataCrunchers**, as a **Hadoop and Big Data Consultant**. DataCrunchers is the leading Belgian consultancy firm around everything big data. I co-develop on our internal Semantic Analysis Engine on top of Storm, I co-presented our Hadoop Ecosystem course, I created a new website using Drupal and I am responsible for our Microsoft big data partnership.

Since March 2007 I am the **Consultant, Managing Director and founder** of **Servs BVBA**; mainly active as an IT consultant in the field of big data & hadoop, web applications (PHP, sql, scalability, best practices, ...), devops & linux orientated system administration and hosting applications.

From March 2011 till April 2012 I worked for **iController**, as **Lead Application and Warehouse Developer**. We build a credit management web application, written in PHP. I managed a small group of developers, took the lead on everything technical and coordinated with the directors, partners and clients.

My job involved lots of PHP, refactoring, performance tuning, system engineering and bits of data analysis.

From April till August 2011 I worked as a consultant for **Truvo**, the Belgian yellow pages, doing a **hadoop deduplication** job. I used Hadoop Pig, wrote custom UDFs in Java for Ngram matching and solved performance issues. At first Amazon

Elastic MapReduce was used, later I setup a hadoop cluster.

At the 2011 edition of the **FOSDEM DataDevRoom**, an open source conference, I gave a presentation about **Hadoop Pig: MapReduce the easy way**, it was featured on the front page of slideshare.net.

From September 2010 till February 2011 I was employed at **Netlog** as a **Warehouse and Web Developer**, creating an analytical warehouse based on Hbase. I also created large parts of the processing infrastructure using Hadoop and Hadoop Pig. I also advised on new technologies, GIT migration, best practices & unit testing. Netlog is a social community network, with over 70 million members, mainly active in Europe and the Arabic world.

From October 2009 to August 2010 I started working at **iController**, a small SME in Ghent, as **web application developer**. I developed a new, greatly improved debtor & credit management web application. We used the Symfony PHP framework as a starting point to create a stable and easy to maintain application.

In 2009 I was active as a consultant to a Dutch services organization. The assignment mainly consisted of **creating a link between existing systems and a new website**.

From 2008 till present I perform various **short term consultancy** tasks commissioned by **Sinergio**. For a **semi government organisation** I set up a new tomcat server and did a general check up on their Linux servers. For another company I configured an ASP.Net application and installed an IIS server. For **Sio Hosting** (Formerly Sinergio Hosting) I planned and executed the move from traditional servers to a virtualized xen cluster. I also check the integrity and security of their hosting platform on a regular basis. I advise them on strategic planning.

During 2004 – 2010 I advised on and co-developed for **4levels** several websites, backend systems and web applications.

During my secondary education I created a **PHP CMS**, with features as native PHP templates, module in module support (recursion) following a very basic MVC pattern. It was used and expanded by two web agencies to create over 30 websites.

SKILLS



In recent times I have become very interested by the processing and storage of **big data**. I read as much as I can about Hadoop, MapReduce and I'm learning Java in the process. I program in Pig Latin and write queries in Hive regularly. Also the setup and administration of a Hadoop & Hbase cluster interests me a lot.

Some Hadoop & Big Data related skills:

- Using & administrating a Hadoop cluster, including Hbase and Zookeeper.
 - Deploying Hadoop on Azure.
 - Using Amazon Elastic MapReduce.
 - Whirr to deploy Hadoop to Amazon EC2.
- Query the data with Pig & Hive.
- Write Pig UDFs in Java.
- Developing solutions for real-time big data using Storm.

Next to programming I have always been passionate about **Linux** and open source. I have used over the last 10 years

I am learning **Java**, mostly using Spring, Maven and Jersey in combination with the JavaScript MVC framework AngularJS.

- Autowiring & Dependency Injection using Spring.
- Consuming the Twitter & LinkedIn API, using OAuth.
- Creating a json based REST API using Jersey.
- Unit testing using JUnit.

I have used **PHP** for over 9 years, from the new namespaces, closures over iterators to PDO, as well as some more exotic multibyte & UTF8 functions, xml & xslt and pecl extensions. The last three years I've been using PHP in a combination with the symfony & Symfony2 frameworks. I use PHPUnit extensively, integrated with Jenkins, to assure that what I write works and keeps on working.

Some PHP related skills:

- MySQL, but also various other databases, like Oracle, MSSQL, Sybase, ODBC using plain PDO, the Doctrine &

several distributions from Debian & Ubuntu, CentOS over Gentoo to Linux From Scratch. I have setup countless servers from virtualized (Xen, VirtualBox, libvirt) to almost bare metal web servers. I administrated Apache and Nginx servers, configured and tuned MySQL and played with Postfix extensively.

I am following the DevOps movement. I am using Puppet to automate and Ganglia to monitor critical infrastructure. I have open sourced and contributed to several Puppet modules.

I follow and try out with great interest Cloud related techniques and technologies, in all its forms: IaaS, PaaS, MaaS, ... I have used as test or in production Amazon S3, Amazon EC2, Amazon MapReduce, Google BigQuery2 (private beta tester), Windows Azure Platform and Hadoop on Azure (private beta tester) and OpenStack.

Languages

Dutch Mother tongue

English Very fluent

Doctrine2 ORM and Propel.

- PHP to Hbase communication using Thrift.
- Memcached & Redis.
- HTML5, CSS & jQuery
- Creating a Drupal site, using Bootstrap and deploying on Windows Azure.
- GIT, Mercurial & SVN.

I am setting my first steps into the **Python** world. I used Python to create a Ganglia proxy and aggregator, I consumed REST and SOAP API's, wrote Threaded applications and deployed to the Google App Engine.

Some basic knowledge, but willing to improve:

- Graph databases (Neo4J, HyperGraphDB).
- NoSQL data stores, like CouchDB, MongoDB, Cassandra, riak, ...
- Scrum, Extreme Programming
- Security & penetration testing.

Other skills

In possession of a drivers license.

EDUCATION

Period 2005 - 2007

Institute University of Antwerp

Program Social-Economic Sciences

Period 1999 - 2005

Institute Hibernia Steinerschool in Antwerp

Program ASO, Higher Secondary education

Achieved in 2005