

# Nathan Bijmens

## INTRODUCTION

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I am Nathan Bijmens, a developer turned Solution Architect with a passion for great code, Big Data and the Internet of Things. I am interested in programming and system administration, especially where they meet, from scalable platforms to designing the architecture of new and existing products and everything in between.

I am a passionate speaker and evangelist, on Big Data, IoT and Cloud. I am helping my customers with Digital Transformation and becoming Data Driven, as well as all their data in the Cloud needs.

My focus is on data analytics and building Big Data applications. Using Spark, Storm, Hadoop, Cassandra, Azure Data Lake, Azure SQL Data Warehouse, Stream Analytics, EventHubs, Kafka and Azure IoT Hub. I am especially interested in real-time Big Data, actively developing applications on top of Spark Streaming and Storm, design Lambda and Kappa-like architectures. I advise on Big Data Strategies and evangelize Cloud, Big Data and IoT clients and at conferences.

I am experienced with Java, Scala and have a general interest in Functional Programming. I am also a passionate Linux system engineer, follower of the DevOps movement, with experience in Puppet, Chef, NixOS and the Cloud.

I enjoy working with clients and partners, from giving advice, talking about the Business and Technological value of Big Data and Internet of Things, to Requirement Analysis.

## PRESENTATIONS

Many **presentations to clients and partners**, typically on:

- Digital Transformation
- Cortana Intelligence and Cognitive Services
- The Internet of Things
- Azure and Cloud

[Cloudera, Azure and Big Data at Cloudera Meetup '17](#) on October 2017

[Microsoft AI at SAI '17](#) on September 2017

[The Internet of Things: Things, Connectivity, Data and Insight, bringing it all together at the Microsoft Services EMEA Summit March '17.](#) on March 2017

[Microsoft Advanced Analytics, with a special focus on Cognitive Services and Azure Machine Learning at the Data Science Belgium Bootcamp October '16.](#) on October 2016

[Microsoft Advanced Analytics @ Data Science Ghent '16 meetup](#) on April 2016

[Spark on Azure: a Gentle Introduction at Cloudbrew '15](#) on November 2015

[Virdata: lessons learned from the Internet of Things and M2M Cloud Services @ IBM Big Data Developers Meetup Silicon Valley](#) on July 2014

[A Lambda Architecture using Hadoop and Storm @ NoSQL Matters Cologne '14](#) on April 2014

[A Big Data Overview, from DataCrunchers @ Devvix 2013](#) on December 2013

[A real time architecture using Hadoop and Storm @ Devvix 2013](#) on November 2013

[A real time architecture using Hadoop and Storm @ JAX London 2013](#) on November 2013

[A series of 3 Apache Storm workshops](#) on August 2013

[Microsoft Big Data @ SQLUG 2013](#) on April 2013

[A real time architecture using Hadoop and Storm @ FOSDEM 2013](#) on February 2013

[Microsoft Inspire '12: Getting more out of your Big Data](#) on November 2012

[Hadoop Pig: Map Reduce the Easy Way @ FOSDEM 2011](#) on February 2011

## EXPERIENCE

On February 2016 I joined **Microsoft** as a **Cloud Solution Architect, Advanced Analytics + AI**, formerly known as **Data Solution Architect**. As a DSA I drive high priority customer initiatives, leveraging Cortana Intelligence on Azure to solve the biggest and most complex data and IoT challenges faced by Microsoft enterprise customers. It is a technical, customer facing role, accountable for the end-to-end customer deployment and usage experience for cloud data and IoT services

From October 2013 till January 2016 I worked for **Virdata** a start-up funded by **Technicolor**, as a **sr. Big Data and IoT Engineer**, previously as a **DevOps Engineer**. Virdata is an Internet of Things Cloud platform, scalable to millions of devices, from tiny sensors to TVs to Cars.

I work on our Data Processing stack, on top of Spark and Spark Streaming, mostly in Scala. I also worked as a lead on our Spark as a Service Infrastructure.

At the end of 2013 I co-founded [lambda-architecture.net](http://lambda-architecture.net), a website about the **Lambda Architecture**. The Lambda Architecture is a data-processing architecture designed to handle Big Data by combining both batch- and stream-processing, while attempting to balance latency, throughput, and fault-tolerance. Batch Processing is used to provide comprehensive and accurate (although slightly out of date) views, while simultaneously using real-time stream processing to bridge the gap.

From April 2012 till March 2014 I worked for **DataCrunchers**, as a **Hadoop and Big Data Consultant**. DataCrunchers is the leading Belgian consultancy firm around everything Big Data. I co-developed on our internal Semantic Analysis Engine on top of Storm, in Java, I co-presented our Hadoop Ecosystem course, I created a new website using Drupal and I was responsible for our Microsoft Big Data partnership.

I have been working for the following clients: [Technicolor](#), [Flemish Government](#), [AWV \(Macq\)](#), [a social media startup](#), [HSHMRK](#) & [Ewals Intermodal](#).

From March 2011 till April 2012 I worked for **iController**, as **Lead Application and Warehouse Developer**. I helped to 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.

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

I am interested in **Functional Programming**, most looking at Scala, and a bit at Clojure. Especially functional programming in relation to Big Data has a focus.

- Developing solutions for real-time Big Data using Spark Streaming, Storm, Azure Stream Analytics, EventHubs, Azure IoT Hub and Kafka.
- Combining batch and real-time technologies to create a Lambda architecture (of [Nathan Marz](#)), that is resilient to failure, scalable and fast.  
As well as using only Stream Processing to build a Kappa Architecture.

Next to programming I have always been passionate about **Linux** and open source. I have used over the last 10+ years several distributions from Debian & Ubuntu, CentOS over Gentoo to Linux From Scratch, lately I am very interested in NixOS. NixOS is a purely functional Linux. I have setup countless servers from Cloud to virtualized to bare metal servers.

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

I follow and try out with great interest Cloud related techniques and technologies, in all its forms: IaaS, PaaS, SaaS, ... I have used as test or in production Azure, OpenStack, Amazon AWS, Google BigQuery (private beta tester) and Softlayer.

## Languages

**Dutch** Mother tongue

**English** Very fluent

I am using **Java**, mostly using Spring, maven & Jersey in combination with the JavaScript M framework AngularJS.

- Developing a Java EE application, with Glassfi using JPA with EclipseLink.
- Creating Threaded servers, using Thrift.
- Autowiring & Dependency Injection using Spring.
- Consuming the Twitter & LinkedIn APIs, us OAuth.
- Creating a REST and SOAP based services, us Jersey or JAX-WS.
- Unit testing using JUnit and Mockito.

I have used **PHP** and **JavaScript** for over 10 years mostly in a combination with the symfony & Symfon frameworks as well as a multitude of SQL and NoS databases, as MySQL, PostgreSQL, Oracle, Informix & Redis, Membase, Memcached and ...

- html5, CSS & jQuery
- Creating a Drupal site, using Bootstrap & deploying on Azure.
- Creating browser based applications us AngularJS.

Some basic knowledge, but willing to improve:

- Graph databases: Neo4J, HyperGraphDB & Titan.
- Various NoSQL data stores, like MongoDB, Voldemort, riak, ...
- Clojure, Ruby and Python.
- Scrum, Extreme Programming
- Security & penetration testing.

## Other skills

In possession of a driver's license.

# EDUCATION

## Perform Big Data Engineering on Microsoft Cloud Services (70-776)

Microsoft | Feb 2018

## Insight Selling

Microsoft | Dec 2017

## MCSA Cloud Platform 2017

Microsoft | May 2017

## Designing and Implementing Cloud (70-473)

Microsoft | May 2017

## Design and Implement Big Data Analytics Solutions (70-475)

Microsoft | February 2016

**IBM Big Data Fundamentals Technical Mastery (N32)**

IBM | 000-28363001 | January 2013

**IBM InfoSphere BigInsights (Hadoop & Big Data) Technical Professional**

IBM | 000-28146057 | October 2012

**SARA Hadoop workshop**

SURF SARA, Amsterdam | December 2010

**Institute** University of Antwerp

**Program** Social-Economic Sciences

**Period** 2005 - 2007

**Achieved** Not Achieved

**Institute** Hibernia Steinerschool in Antwerp

**Program** ASO, Higher Secondary education

**Period** 1999 - 2005

**Achieved** 2005