



# Edgar Paul Klerks

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*CV Edgar Klerks*

## Experience

2015-current **Lead software engineer**, *Sanoma Digital*, Hoofddorp.

I am maintaining a platform running various big data related service, while also offering support to the end user. At the same time I am migrating the platform to AWS. I am working with:

- Hadoop, Hadoop-streaming, Java
- Hive, HiveQL, Hue
- Cloudera
- Java
- Scala, Scalding, Spark
- Bash
- PostgreSQL
- Python
- AWS (Emr, Ec2)
- Chef

2013-2015 **Lead/Senior Software Engineer**, *Sanoma Digital*, Hoofddorp.

At Sanoma I develop a search engine for magazines. I was busy with semantical analysis, image analysis and maintaining servers.

The project works with SOLR, Django, Celery, RabbitMQ and Mongo and is just out of the beta phase.

Later I became the lead of the project and created the architecture for a rewrite. The reason for the rewrite was that there was a significant amount of technical debt and that it didn't meet business requirements. The project was started small and it slowly became a backbone of the company. I mapped out business requirements and made an architecture, which could scale with our internal clients.

- Django Framework
- Python
- MongoDB
- PostgreSQL
- SOLR
- Celery
- RabbitMQ

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- OMQ
- Puppet

2012-2013 **Senior Software Developer**, *Factory4Web*, Amsterdam.

I was a back end developer for a social marketing tool and responsible for performance tuning and monitoring of the sites. I worked with Zend framework version 1 and doctrine 2.

I programmed mainly PHP, some perl. Unfortunately the company went bankrupt, when the financial crisis hit the kitchen market.

2010-2012 **Founder**, *I-Bytes BV*, Amsterdam.

I developed with the team a small social network, with which people could upload photographs, video's or other media files to their profiles and chat with friends. The server was developed in Snap and was designed as a REST api. We developed a webclient and a mobile client for both iPhone and Android. On the Android I programmed in Java. On the iPhone objective-c.

We later developed a game for Heineken, which ran on the same architecture as above. It was quite a success and also made a tool, so Heineken could get demographic information about it's users. People could play this with mobile phones at the heineken user experience. We developed some software to show it on big screens in the heineken experience, which ran on self developed hardware. We also developed a strategic race management simulation game. This never left beta, because the company went broke.

I programmed mainly in Haskell and use a variety of products.

- Haskell
- Snap Framework
- PostgreSQL
- OMQ
- Java
- Objective-c

During this time I led a team of 7 people.

2009 - 2010 **System admin/Developer**, *Goodforall*, Naarden.

Setting up the webshop facilities for clients as well as the company itself Responsible for the development and implementation objectives of Goodforall

I worked with PHP, OsCommerce and various payment service providers (ogone and adyen). I also implemented track and trace, storage management and a connection to the book keeping program.

2007-2009 **Freelance developer**, *Various*, Various.

Acquisition and management of clients Development of websites and online applications for various clients and businesses Development of online representation and marketing development environment, integrating the development of websites, online applications, intranets, CMS, CRM and e-mail marketing features

I mainly developed in Perl, I used several CPAN packages. One of the more handy was Rose::DB. I worked with SugarCRM and made several changes to it. I also developed several websites for a client with an internal framework in PHP.

2007-2008 **Developer**, *Sonologic*, Amsterdam.

Responsible for different projects for local governments Creating and developing a wide range of websites

I worked with Twiki and Wordpress, google maps and an internal framework. Programming languages: Perl and PHP.

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## Extracurricular activities

2006-2007 **Teaching assistant**, UvA, Amsterdam.

Teaching mathematics and physics practicum as student assistant for the university of Amsterdam.

## Natural languages

Dutch **Native**  
English **Excellent**  
English **With accent**  
German **Basic**

*Writing*  
*Speaking*  
*Reading*

## Programming languages

Some languages I have used professionally:

Language knowledge			
Language	Skill level	Year of last professional use	Years of use
Perl	Senior	2015	10
PHP	Medior	2007	5
Haskell	Senior	2015	7
C++	Medior	2010	5
Scala	Junior	2016	1
C	Senior	2014	6
Mathematica	Senior	2007	5
Python	Senior	2016	6
Tcl	Medior	2015	1
Scala	Junior	2015	1
Java	Medior	2016	3
Bash	Senior	2016	10
Javascript	Senior	2014	8
Sh	Senior	2016	10

I have a preference for language with advanced static and strong type systems.

In hobby projects I used TCL, Cyclone, Pure, Cayenne, COQ, Agda, Idris, Factor, Forth, Lisp, Scheme, Typed Racket, Star Logo, Lua and probably more.

I have an interest in Scala, because of the advanced typesystem.

I am now deepening my knowledge on COQ, which is an interactive prove assistant, so I can use it to make package of which I can show they are correct.

## People skills

I am a liberal team lead, who works on base of trust. My motto is to better ask forgiveness then to ask permission and think first then code. I am a calm, stable personality, who doesn't take things to personal and always try to look from the others perspective. I like to bring over my knowledge (even the obscure knowledge) and are always willing to learn from others.

I have worked with a variety of people. Other people describe me as easy going, a bit chaotic and

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strict.

## Coding style

My coding style is strongly influenced by functional programming. I find testing very important, but I try to do it in a lazy way, by reasoning about the code and using QuickCheck style libraries, which will generate the test cases for you based on a type specification. For an example on professional level see: <https://github.com/edgarklerks/composablepairingheap>

I also like to use the type system to make code more robust or if the language doesn't have a strong enough type system, then I will use contracts. I find that it is a great tool to reason about your code and it also reduces the amount of tests to the bare minimum.

I am a documenter, I write a lot of documents about my code and I also like to create designs upfront of what I am going to make.

## Operating systems

I have extensive knowledge of UNIX, the Posix standard. Linux and \*BSD. I prefer working on the command line and I know how to read a manpage :)

And a bit of experience with Minix 3, HaskellVM and XEN.

## Other technologies

I have experience working with SOLR, ElasticSearch, PostgreSQL, MySQL, Apache, Lighthttpd, nginx, redis, Hadoop, Spark, Storm and more.

I have also worked with various frameworks: Snap, SQLAlchemy, Rose...DB, Django, Flask and more.

## Education

2003–2007 **Physics**, *UvA*, Amsterdam.

I have studied physics and was quite good at it, I always did extra math courses. Unfortunately I couldn't finished, because I got a child and my parents deceased in a short time span.

1996–2002 **VWO**, *Horizon college*, Alkmaar.

Little noticable here. I had a beta profile.

## Interests

Mathematics is one of my main interests. I especially enjoy category theory, because it is applicable to programming. I also like to write poetry. I have an interest in chemistry, horse-back riding and I like to build mathematical models of phenomena I encounter. And have done judo, karate and kickboxing and I am now doing ju-jitsu.

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