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| **Python DevOps Engineer** | **Peter Kemeling** |

Born 10-05-1981

Living in Leusden

**ME**

I have always loved to build things. As a child my dad used to set challenges with Lego Technic like building a walking robot with 6 legs. This love for designing and building solutions to complex problems is still wat keeps mee going. Today my tool of choice is Python and my love for a challenge has only grown larger.

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| **Software Development** | Python, FastAPI, Flask, Django, Pandas, Numpy, Pydantic, Async, Pytest, Behave, Locust |
| **CI/CD** | Git, Jenkins, Docker/Docker-compose, Rancher, Kustomize/Helm, JFrog Artifactory |
| **Data Engineering** | Pandas, Numpy |
| **System Engineering** | Linux, Ansible, Apache, Nginx, Uvicorn, Networking, Monitoring, Logging, Storage |
| **Video Engineering** | Edgeware video streamers & Convoy, Unified Streaming Origin, DRM, RTSP Multicast & Unicast streaming, HTTP streaming, Synamedia VQE, Agama monitoring, Linear, VOD and Recordings |
| **Soft skills** | Team player, innovative, quick learner, front man, social, enthusiastic, earnest |

I have built several large scale, high performing solutions and platforms. The last couple of years I was responsible for architecture, design, building, testing, load testing and operations of a large video-streaming service with about 2.5 million households as customers in The Netherlands. Fully ‘you build it, you run it’, it is something I strongly believe in. The product runs on hardware, VM’s, on-premises Kubernetes, EKS and AWS native services, for which I have all developed various solutions. All of which are high available and high performant (for more details see work experience).

In these projects I have built RESTful microservices, configurable/dynamic complex business logic, full CI/CD pipeline to Kubernetes including automatic unit integration and smoke tests, logging, dashboards, and alerting using Splunk.

I can also lead a team in case it is needed, l

I pride myself on being a true DevOps engineer. I know the product top to bottom and design, build, test, deploy and run the solutions I create. This full responsibility this job interesting to me.

**Languages**

Dutch (Mother tongue), English (Fluent), German (Elementary).

**Education**

## **HvA Pabo Almere 09-2003 – 01-2007**

Primary school teacher

* Due to private circumstances, I did not finish the education

## **ROC ASA MTS technical informatics 09-1999 – 07-2001**

Technical IT

* Graduated

**Working Experience**

## **DevOps & Backend Engineer | KPN iTV | 06-2016 – Current**

As DevOps engineer, I was responsible for architecture, design, building, running, upgrading and developing the back-end video systems of KPN iTV, a nationwide TV service with about 2.5 million households as customers. This included IPTV and HTTP streaming for linear broadcasts, VOD and recordings. The platform included video streaming (both Origin, CDN layer and IPTV multicast and unicast), video recording, VOD ingestion and transcoding, DRM and geo fencing, error correction and rapid channel change, QoE monitoring and a large number of tools and scripts. For all of which I was responsible and have built. It was critical to have this high performant, highly available, high traffic, complex platform available 24/7, not only for the company, but it was also mandatory by law since the disaster information channels must always be available to the public. Due to the high profile of the service I am used to work under pressure, both time and responsibility. I was the go-to engineer if a high stakes demand needed to be implemented on a short notice or under high pressure.

My team consisted of 8 engineers; I functioned as team lead even though there was no formal hierarchy. We worked in an agile environment using scrum. Even though iTV was a separate product, we still needed to use and incorporate KPN infrastructure and policies like security. I am used to dealing with a large organization and have no problem finding my way to get things done.

**I did:**

* Create prototypes for new services or solutions. I used to spend Friday afternoons to build new ideas and solutions. Many of which have been implemented. My go-to tools for this are Python, FastAPI, Django and Pandas.
* Design and create the architecture for the Video service. The Video service of iTV consists of a large number of components, some are bought, some are developed in house. A large part of this platform is done by me, design, architecture, software.
* Develop backend software, glue ware/integration software, provisioning systems, API layers/gateways and all sorts of tooling. My go-to tools are Python, FastAPI, Django, Pandas, Docker/Kubernetes, Git and Jenkins. I have built most of the backend software in the iTV Video platform.
* Performance test the to be implemented solutions. My deep knowledge of the service allowed me to create real world load models to test new software. I used Locust, since it is based on Python giving me a lot of freedom to build tests.
* System engineering for the software provided to us by suppliers, like streaming, origin, or monitoring services. Some platforms, like DRM or streaming services, where not built in-house, but acquired from a vendor. To implement and uses these platforms I used Linux, Ansible, Git, Jenkins and a number of provisioning tools.
* Operations on all the systems, including on-call duty. You built it, you run it. It is something I really believe in. If you run your own software you become intimate with its flaws and know how to fix them.
* Incident solving on all systems.

**I used:** Python, FastAPI, Flask, Django, PyTest, Locust, Docker/Docker-compose, Kubernetes, EKS, AWS native services, Jenkins, Linux, Ansible.

## **Backend Operations Engineer | KPN iTV | 07-2014 – 04-2016**

As Backend operations engineer, I was responsible for running, maintaining and upgrading the entire IPTV platform as well as troubleshooting, root-cause analysis and

fixing incidents for the iTV service including on-call duty. The iTV service is, not only for the company, by law required to be always available to the public. My team, consisting of 6 operations engineers, was responsible for the entire backend. The included IPTV multicast and unicast streaming (recordings and VOD), error correction and rapid channel change, recording of live TV, middleware (all customer data related to iTV like recordings and purchased packages) and many monitoring tools.

**I did:**

* Run and maintain the IPTV platform.
* Patch and upgrade the servers and applications.
* Incident solving, writing workarounds and root-cause analysis.

**I used:** Linux, bash scripting, Python scripting, Oracle DB, JBOSS.

## **System Administrator | Grafisch Lyceum Utrecht | 02-2017 – 03-2014**

As a system administrator at Grafisch Lyceum Utrecht I was responsible for maintaining, updating and supporting the PC’s and Mac’s students and staff used.

**I did:**

* Maintain and update the client PC’s and Mac’s.
* Maintain, install, and update the servers.
* Support the students and staff with all sorts of technical issues.
* Develop an internal support ticketing system. I used PHP, Javascript and HTML for this system.

**I used:** MacOS, Windows, Linux, Novell Netware, PHP, Javascript

**Other Activities**

## **UVV Volleyball club management**

* Part of the technical and party planning comities
* Coach for the first male team (I used to play in this team, but was forced to stop due to an injury)

## **Hobbies**

I used to play volleyball but had to stop due to an injury. Now I coach the team and am still involved. For sport I started table tennis and really like it. I also like to cook and spend a lot of time in my kitchen. Lastly I ride and work on my motorcycle.