

Merijntje Tak

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Professional experience

- 2021–Current **Lead Big Data Platform Engineer**, *Van Oord N.V.*, Rotterdam, NL.
Development of a cloud-based data management platform using DevOps principles.
- Design a new Azure HDInsights based (Hadoop) platform for data analytics using Data Factory for ETL.
 - Design and write Ansible code for deployment of data pipelines based on Confluent Cloud and Elastic Cloud on Azure.
 - Consult on platform low level designs, standards and implementation.
 - Set up and maintain data processing jobs on Kubernetes using Helm and Ansible.
 - Implement Elasticsearch SSO using Azure Active Directory, deployed using Ansible.
 - Implement a CI focused development process using GitHub Actions.
 - Set up fully automated secret management using Azure Key Vault.
- 2017–2021 **Lead Big Data Platform Engineer**, *Liberty Global B.V.*, Schiphol-Rijk, NL.
Development of a real-time big data processing platform using DevOps principles.
- Lead the DevOps team in implementing the big data platform (30%). Duties included reporting, architecture, advising, prioritizing and incident management.
 - Developed a big data platform. It's currently scaled to over 600 physical servers, 2,000 data pipelines, and 1 million messages per second and hundreds of internal users.
 - Debugged and fixed performance bottlenecks in Apache Kafka, Elasticsearch, and Logstash when scaling to thousands of topics, millions of messages, and tens of thousands of shards.
 - Implementing Apache Kafka, Zookeeper, Spark, Elasticsearch, Logstash, Kibana, Mesos, Marathon, Chronos and HDFS.
 - Implementing interfaces between various big data components.
 - Operating the platform, troubleshooting component failures and (Python/Scala) Spark jobs.
 - Designing, coding and testing Ansible playbooks using GitHub as a VCS. Developed CI/CD and configuration management for all infrastructure components and data pipeline deployment using Jenkins.
 - Development of Docker containers.
 - Developing and implementing monitoring for various components (based on JMX, Nagios and Graphite with Grafana).
- 2014–2017 **Lead Technical Innovation Specialist**, *Ministry of Defence*, Den Haag, NL.
Concept development and experimentation (CD&E) for the Dutch armed forces.
- Identification, authentication and authorization technologies.
 - Intakes for new projects, technical advice and requesting approvals.
 - Designing and building several OpenStack clusters, including management scripts.
 - Cybersecurity (encryption, VPN/payload encryption, risk reduction).
 - Designing and implementing modules for Puppet and creating Docker containers.
 - Networking (LTE, satcom, ad-hoc WiFi).

- 2013–2014 **Chef and AWS Specialist**, *Ministry of Infrastructure and the Environment*, Den Haag, NL.
Automating deployment of a new middleware platform using Chef on AWS.
- Develop an Amazon Web Services orchestration tool.
 - Establish a development method for developing Chef cookbooks.
 - Designing a Chef platform and Jenkins pipelines.
 - Writing Chef cookbooks, chefspec and chef-workflow scripts.
 - Developing a deployment and release process for middleware applications (WSO2, Consul).
- 2013–2013 **DevOps Engineer**, *Digidentity B.V.*, The Hague, NL.
Digidentity is an identity management and Certificate Service Provider.
 Maintaining 100 Ubuntu Linux instances in a highly versatile Agile DevOps environment
- Supporting developers in deploying and running custom built Ruby-on-Rails applications.
 - Writing Chef recipes for automating server and RoR application deployment.
 - Supporting and deploying web application servers.
 - Building and supporting database clusters.
 - Maintaining and supporting several root certificate authorities.
- 2012–2013 **Unix Engineer and Coordinator**, *Tele2 Nederland B.V.*, Diemen, NL.
Tele2 is a telco/ISP providing consumer DSL, 2/3G MVNO and enterprise services.
 Maintaining 1000 Unix servers and coordinating operational tasks within the Unix team in an Agile Scrum environment.
- Second and third level hardware and OS support on Linux, HP-UX and Solaris systems.
 - Maintaining a enterprise-level managed service and LAMP hosting environment.
 - Optimizing existing and new low-level operational and Scrum-related processes to be more flexible towards the organization.
 - Supporting Tomcat and other application servers.
 - Third line support for NetApp and HP 3PAR SAN storage systems.
 - Maintaining a mail platform for 100.000+ users.
 - Supporting application development teams with Unix and application expertise.
- 2011–2012 **Sr. Unix Engineer**, *T-Mobile Netherlands B.V.*, The Hague, NL.
Online Breedband is an ISP providing DSL service for approx. 300.000 customers.
 Supporting over 200 Solaris, Linux and FreeBSD instances in a 24x7 enterprise ISP and business environment.
- Second and third level hardware and OS support on Sun SPARC, Intel and VMware ESXi systems on a 24x7 on-call duty roster.
 - Moving critical business systems to different datacenters, while keeping 100% uptime.
 - Supporting customer facing ISP and provisioning services such as mail, DNS, webhosting, DHCP and RADIUS for 300K+ customers.
 - Designing and supporting platforms for business systems (CRM, DWH, billing, etc.).
 - Designing and supporting internal services such as LDAP, Jump/Kickstart, Nagios, Puppet and load balancers.
 - Managing and supporting storage systems based on NetApp, ZFS and Sun Fishworks technology.
 - Designing, implementing and delivering systems and applications for new projects next to improving current systems and applications.
 - Creating outlines for new processes and SLA's for working with new customers.

- 2009–2011 **Unix Engineer**, *Ziggo B.V.*, The Hague, NL.
Ziggo is a national cable operator, serving approximately 50% of the Dutch cable market.
Supporting over 250 Solaris 10 servers in a 24x7 enterprise business environment.
- Virtualizing 100 physical servers to Solaris Zones to increase datacenter and management efficiency.
 - Second and third level hardware and OS support on Solaris 10 systems.
 - Designing and deploying Sun Solaris systems using Jumpstart, Zones, ZFS, LDOMs and resource management.
 - Supporting basic services such as LDAP, DNS, SMTP, clusters and systems monitoring based on Hobbit, Sun Management Center and System Center Operation Manager.
 - Creating new tools in order to increase company efficiency. I built an OS performance monitoring tool using rrdtool, SNMP and Perl.
 - Handling project requests and user questions in an customer-focused way while teaching colleagues.
 - Pinpointing and resolving performance problems in Solaris systems and applications using the Solaris *stat tools, truss and DTrace
- 2008–2009 **Support Services Engineer Back Office Management Systems**, *Ericsson Telecommunicatie BV*, Rijen, NL.
Third line support on over 150 servers running management systems for cellular, fixed and core networks.
- 2008 **NOC Team Leader and System Administrator**, *Ericsson South Africa PTY LTD*, Cape Town, ZA.
Leading a network operations team (10 FTE) and setting up and administering a fault and performance management system for a trail cellular network at Vodacom South Africa.
- 2007–2008 **System Administrator**, *Ericsson Telecommunicatie BV*, Rijen, NL.
Desktop client support and first line Unix support for network operations.
- 2006–2007 **Radio Access Network Operator**, *Ericsson Telecommunicatie BV*, Rijen, NL.
First line monitoring, fault management and maintenance for multiple cellular operators in Europe with approximately 23 million end users on a 24x7 rotational shift.

Education

Courses

- 2020 **Elasticsearch Engineer 1&2**, *Elastic*.
- 2015 **Archimate 2 Foundation**, *OpenGroup/BIZZdesign*, certified.
- 2015 **Ministry of Defence Cyber self study programme**, *Certified Secure*, certified.
- 2013 **The Exploit Laboratory: Black Belt Edition**, *Net-Square Solutions*.
- 2013 **Cisco Certified Network Associate (CCNA)**, *Cisco Systems*, certified.
- 2013 **The Exploit Laboratory**, *Net-Square Solutions*.
- 2012 **IBM Tivoli Identity Manager**, *IBM*.
- 2011 **Red Hat Certified Engineer (RHEL6)**, *Red Hat*, certified.
- 2011 **Red Hat Certified System Administrator (RHEL6)**, *Red Hat*, certified.
- 2011 **Solaris System Performance Management**, *Oracle*.
- 2010 **MX000 administration**, *Sun Microsystems*.
- 2010 **Performance tuning with DTrace**, *Sun Microsystems*.
- 2010 **VCA (operational safety awareness)**, *PBNA*, certified.
- 2009 **Logical domains and ZFS**, *Sun Microsystems*.
- 2008 **Analytical troubleshooting**, *Kepner-Tregoe*.
- 2007-2008 **Various technical courses (telecom)**, *Ericsson*.

Formal education

- 2012–2015 **Computer Science**, *The Hague University*, The Hague, NL.
Bachelor computer science.
- 1999–2006 **HAVO**, *Mgr. Frencken College*, Oosterhout, NL, *Graduated*.
High school, with elective subjects French, mathematics, physics, chemistry and IT.
Driver's License, European categories A and B (motorcycle and car).

Conferences

- 2015 **Chaos Computer Congress**, Hamburg, DE.
- 2015 **DEFCON**, Las Vegas, NV, USA.
- 2014 **Chaos Computer Congress (31C3)**, Hamburg, DE.
- 2014 **Hack In The Box**, Amsterdam, NL.
- 2013 **DEFCON**, Las Vegas, NV, USA.
- 2013 **Black Hat**, Amsterdam, NL.

Languages

- Dutch **Native**
- English **Fluent**

Professional and personal

Skills

Hardware

Sun/Oracle	Blade series, Enterprise series (including E25K), Fire series, T-series, X-series, M-series (including M9000), SunRay
HP	DL380 G3/4/5/6, 9000 D-Class
NetApp	FAS3240
Cisco	ASA55xx, C2600, C2950, C3600, C3750, UCS blade system

Software

Operating systems	Solaris on SPARC and x86, HP-UX: 11.23/31 on Itanium Linux: Red Hat Enterprise Linux, Fedora, CentOS, Debian and Ubuntu on x86
Configuration Management	Chef, Puppet, Ansible, Terraform, Helm
CI/CD Pipelines	GitHub Actions, Jenkins
Scripting	Base, Ruby, Perl
Cloud	AWS, Azure
PaaS	Azure Kubernetes Service, Apache Mesos, Docker
Revision control	Git, Subversion, GitLab, GitHub
Data processing	Apache Kafka, Kafka Connect, MQTT, Spark, Node-RED, Flume, Logstash
Database	Elasticsearch, MySQL, PostgreSQL, Carbon/Graphite, Redis, Cassandra
Volume management	Solaris Volume Manager, ZFS, MPxIO, NetApp ONTAP, Linux & HP-UX LVM
Web	Apache2, nginx, PHP, MySQL, Tomcat, Phusion Passenger
File systems	Azure Data Lake Gen2, Azure Blob Storage, NFS, UFS, ZFS, WAFL, GlusterFS
Virtualization	Sun LDOMs, Solaris Zones, VMware vSphere 4 & 5, Linux QEMU/KVM, Proxmox
Backup	Symantec NetBackup, Hitachi CommVault
Networking	Solaris IPMP, Vyatta, CrossBow, Open vSwitch
Clustering	Zookeeper, Solaris Cluster 3.1, Marathon, Chronos
Monitoring	BigSister, Hobbit, Nagios, Sun Management Center, Cacti, rrdtool, net-snmp, JMX, collectd
Enterprise monitoring	Ericsson OSS-RC, HP OpenView Operations, HP OpenView NNM
DNS	Bind9, PowerDNS
Mail	Postfix, Courier, Procmal, Dovecot, qmail
Identity Management	Azure Active Directory, Sun Java System Directory Server 5 and 6, Apache DS, openldap