Ric **Klaren**

SENIOR SOFTWARE ENGINEER

Austin, Texas

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Summary

Versatile Senior Software Engineer with strong analytical, test and operational skills. Quick to learn and master new technologies. Detail-oriented, but focused on the big picture and long term goals. Strong advocate of Agile and DevOps methodologies and the practices that come with them: Continuous Integration, Automated Testing and Continuous Delivery. Automation guru. Linux guru. Passionate about delivering high value and good user experience to end users.

Skills

Languages	English (fluent), Dutch (fluent) and German (business level)
Programming Languages	Java, C, C++, JavaScript, Scala, PL/SQL, Pascal, Groovy, Python, JavaScript, Bash, PHP, Perl, Tcl/Tk
Operating Systems	Linux, Solaris, Windows, OS X
Source Control	Git, GitHub, Subversion, CVS, Perforce
Software Quality	Sonar, Jacoco, Checkstyle, FindBugs, Better Code Hub
Parser Generators	ANTLR, Cocktail, Lex, Yacc
CI & Build Tools	Jenkins, Nexus, Gradle, Maven, NPM, XL Deploy, XL Release, SCons, Make, Autoconf
Testing Tools	TestNG, JUnit, Robot Framework, JMock, Mockito, Hamcrest, Selenium, GEB, HtmlUnit, STAF, XL TestView
Load Testing Tools	Gatling, JMeter, Grinder, Benerator
Monitoring & Graphing	Collectd, InfluxDB, Grafana, JVisualVM, MAT, AppDynamics
Databases	MySQL, MS SQL, Oracle, H2, Derby, Elasticsearch
Web Servers	Apache, nginx, Tomcat, Jetty, Ratpack, Spring Source DM Server, Eclipse Virgo
Virtualization & Cloud	AWS EC2, Docker, Linux KVM, VirtualBox, Vagrant, ESXi
Tools	SaltStack, Puppet, Okta, Keycloak, Liquibase, JIRA, doxygen, docbook, Eclipse, Intellij, RPM, Unix tools
Frameworks/Libraries	OSGi, Spring, Spring Security, Wicket, Netty, Hibernate, Logback, Jolokia, JAXB, JPA, BIRT, Angular JS, Highcharts
Protocols	HTTP, SOAP, REST/JSON, DHCP, SAML2, OIDC
Methodologies	OO, Design Patterns, Domain Driven Design, TDD, BDD, Continuous Integration & Delivery, Agile, Scrum, Kanban

Work Experience

Self Employed   *Deventer, NL / Austin, TX, USA*

SENIOR SOFTWARE ENGINEER   *September 2017 – now*

- Set up a blog.
- Experiment with a Pocketbeagle based robot.
- Do some maintenance and small enhancements on libvirt support for salt-cloud (a component of SaltStack).

XebiaLabs Inc.   *Hilversum, The Netherlands*

PRODUCT DEVELOPER   *February 2013 – August 2017*

- Build quality products for XebiaLabs. XebiaLabs is a top-ranked vendor that provides innovative DevOps tools: XL Deploy (application deployment), XL Release (release automation), XL TestView (analytics for test data) and XL Impact (generic CI/CD analytics). I have held positions on various teams.
- Lead effort to implement SSO for the XL products. Prototype a SAML2 implementation. Implement an OIDC integration for XL Release. Integrate with Keycloak for 2FA.
- Member of the XL Impact team, build a proof of concept product and work towards a beta launch. Among other things I investigated the effort to run a our own Kubernetes cluster.
- Tech lead for the tooling team. Focus on improving build speed, build infrastructure, test infrastructure and IT automation. The end goal is to improve the feedback cycle for the teams working on the products and plugins.
- Member of the XL Release team. Set up infrastructure to run the protractor test suite to run in parallel. Make build more incremental.
- Member of the architecture team. Execute bigger product-wide refactorings in build system, build pipelines in Jenkins and documentation generation. Automate large parts of our infrastructure using SaltStack.
- Tech lead XL TestView team. Guide team in productizing the minimal viable product. Oversee product releases. Improve code structure. Set up continuous deployment to an acceptance environment. Implement tests for product upgrades. Increase stability UI tests. Coach team members in writing better UI tests. Parallelize REST API tests. Create load test infrastructure using Gatling, Collectd, Influxdb and Grafana.
- Manage a mostly seamless transfer of development infrastructure between offices.

XebiaLabs Inc.

- Improve the way integration tests with virtual machines work by implementing libvirt/KVM support in our test library, Overcast. Previously integration tests were run on vagrant boxes, which did not scale very well. By using KVM/libvirt we could run more VM's in parallel and spin them up faster. For the WebSphere plugin, this reduced test time from 8 hours to 1 hour.
- Create the license system used in XebiaLabs products.
- Maintainer of the XL Deploy WebSphere plugin.
- Work on both back end and front end of XL Deploy. Oversee product releases.
- Overhaul and secure the internal build infrastructure.

Perceptive Software   *Apeldoorn, The Netherlands*

Software Engineer   *February 2012 – January 2013*

- Work in a small team on improving the build and test infrastructure of BPMone. We refactored the legacy nightly build into a CI pipeline using Jenkins. We halved the total build and test time from 8 to 4 hours.
- In charge of the nightly build setup.
- Set up automatic installation of the product in the test environments.
- Create Selenium tests for the post install wizard.
- Coach 'old school' developers in CI and Agile practices.

Educator B.V.   *Putten, The Netherlands*

Senior Software Engineer   *October 2008 – January 2012*

- Work on Educator's Educational Information System. 'Educator' is a web application supporting thousands of users. The application offers functionality for describing the curriculum, planning courses, tracking study progress, registering and calculating grades, and other activities.
- Design the domain model for a new grading and calculation engine.
- Integration of Spring Security and Spring Security ACL's in the OSGi stack. Providing pluggable authentication and authorization modules.
- Improve the integration of a BIRT reporting engine, so reports are offloaded to separate processes and data is streamed to end users. Build load tests for this integration.
- Set up and improve CI pipeline using Hudson. Set up Continuous Delivery to acceptance environments.
- Convert builds from Maven to Gradle.
- Oversee product releases.
- Scrum master of the release support team.
- Analysis and troubleshooting of the more severe production problems.
- Implement monitoring using AppDynamics at one of the bigger clients. Advise them on improving their infrastructure and how the product is deployed.

Cordys B.V.   *Putten, The Netherlands*

Software Engineer   *May 2008 – September 2008*

- Work in a scrum team on a component of the Cordys BPM/ESB offering.
- Designed a data filtering API for use in Cordys WS-AppServer user interfaces.

Group 2000 B.V.   *Almelo, The Netherlands*

Solution Architect   *June 2007 – April 2008*

- Group 2000 offers middleware for Lawful Interception. Its Lawful Interception Mediator Architecture (LIMA) offers a flexible solution for Lawful Interception of communications in plain old telephone networks and IP traffic. Next to the LIMA Mediator, a Management System is offered for distributing interceptions in the networks of content service providers.
- Responsible for extending and maintaining the LIMA Management System.
- Coordinate the work in a small team and ensure that we could deliver timely and well-tested releases.

PTS Software B.V.   *Baarn, The Netherlands*

Software Specialist   *February 2005 – May 2007*

PTS provides engineers for hire for companies that require skilled interim professionals. I was posted in various roles at the companies below.

PTS Software B.V. posted at Group 2000 B.V.   *Almelo, The Netherlands*

Software Engineer   *August 2006 – May 2007*

- Work on the LIMA Management System and its automated test framework. Both maintenance and extensions.
- Design and implement a black box test environment for a DHCP sniffer.

PTS Software B.V. posted at Pemstar B.V.   *Almelo, The Netherlands*

Test Engineer   *December 2005 – August 2006*

- Write acceptance tests and test firmware for a control panel for the Airbus A380. The tests are written to verify all the hardware components and connections in the panel.

PTS Software B.V.   *Baarn, The Netherlands*

Software Engineer   *November 2005*

- Work on PTS Software's Embedded Quickstart Linux distribution.

PTS Software B.V. posted at Group 2000 B.V.   *Almelo, The Netherlands*

TEST / SOFTWARE ENGINEER   *March 2005 – October 2005*

- Work on the implementation of the first version of the LIMA Management System.
- Design and implement a black box test framework to automatically test the Management System.
- Write tests plans for extensions to the LIMA Mediator.
- Write test plans for prepaid USSD services.
- Research and prototype porting the Group 2000 software stack from Sun Solaris to Linux.

Formal Methods and Tools Research Group, Faculty of Informatics, University of Twente   *Enschede, The Netherlands*

TECHNICAL ASSISTANT   *December 1999 – November 2004*

- Work on the design and implementation of a compiler for a formal language: MoDeST (Modelling language for Stochastic Timed systems).
- Teach introductory Java courses.

Open Source

ANTLR

MAINTAINER ANTLR2 C++ BACKEND   *January 2000 – May 2007*

Enhance and maintain the C++ backend for the popular ANTLR 2 parser generator.

XebiaLabs

CO-MAINTAINER OVERCAST LIBRARY   *2014 – PRESENT*

XebiaLabs open-sourced a few components. Overcast is a library that offers an abstraction of hosts in the cloud for testing. I implemented support for Linux libvirt. By leveraging differential images, full clones of both Linux and Windows machines can be created at Docker speeds.

SaltStack

CONTRIBUTOR   *2016*

I contributed libvirt support for Salt Cloud, including the differential image tricks developed for Overcast.

Publications

- **Modelling stochastic timed systems**, P.R. D'Argenio and H. Hermanns and J-P. Katoen and J. Klaren, 2nd Workshop on Embedded Systems, STW Technology Foundation, Veldhoven, The Netherlands, pages: 31 – 36 (2001).
- **MoDeST: A Modelling language for Stochastic Timed systems**, P.R. D'Argenio and H. Hermanns and J.-P. Katoen and J. Klaren, Process Algebra and Probabilistic Methods, Lecture Notes in Computer Science, Vol. 2165, Springer, Aachen, Germany, pages: 87 – 102 (2001).
- **The MoDeST modeling tool and its implementation**, Henrik Bohnenkamp and H. Hermanns and J.-P. Katoen and J. Klaren, Editors: Peter Kemper and William H. Sanders, Computer Performance Evaluation – Modelling Techniques and Tools, Lecture Notes in Computer Science, Vol. 2794, Springer-Verlag, Urbana-Champaign, USA, pages: 116 – 133 (2003).
- **Embedded software analysis with MOTOR**, J.-P. Katoen and Henrik Bohnenkamp and H. Hermanns and J. Klaren, Editors: M. Bernardo and F. Corradini, Formal Methods for the Design of Computer, Communication and Software Systems: Real Time, Springer Verlag, Bertinoro, Italy (2004).
- **Synthesis and Stochastic Assessment of Schedules for Lacquer Production**, H.C. Bohnenkamp, H. Hermanns, R. Klaren, A. Mader, Y. S. Usenko, Proceedings of the first international conference on The Quantitative Evaluation of Systems, (QEST'04), Enschede, The Netherlands, pages: 28 – 37 (2004).

Education & Courses

University of Twente   *Enschede, The Netherlands*

MSC. IN COMPUTER SCIENCE   *Graduated 1999*

XebiaLabs Inc. / Xebia B.V.   *Hilversum, The Netherlands*

INTERNAL COURSES

- Scala Fundamentals Course (2015)
- Intermediate Scala & Akka Course (2015)
- Angular JS Course (2016)

About me

When not at work I enjoy:

- Programming and tinkering with computers, Arduino's, Espruino's, Beagleboards
- 3D printing
- Hiking and hill walking
- Reading

Work status

- Permitted to work in The Netherlands and EU.
- Hope to receive work permit for the USA in June.