# Jörgen Nikolaisen

#### In short...

Senior full stack developer, Java, Javascript, DevOps, Kubernetes System developer, Analysis & Design, Architecture, Optimization, Technical project management, Feasibility studies.



Degree: Civ. Ing Master of Computer Science, KTH

#### Certifications:

- Sun Certified Web Component Developer (SCWCD)
- Sun Certified Java Programmer (SCJP)
- Scrum Master

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Company: Numerico AB

## **Summary**

System Developer, full stack, java / javascript, DevOps & Kubernetes. Very experienced developer with focus on modern web architecture. Love to program and build systems with "right" technology stack for the application. Prefer Agile, Lean and testdriven development. Works close to the customer to ensure that the right things are built. Enjoy working in teams and takes tech lead role when needed. Is comfortable to work with requirements together with customers and the team. Enjoy working with figuring out best-way-to-work, along with the team, regarding requirements, people & tools.

CV:

Svenska: <a href="http://www.nikolaisen.com/cv.pdf">http://www.nikolaisen.com/cv.pdf</a>

English: <a href="http://www.nikolaisen.com/eng\_cv.pdf">http://www.nikolaisen.com/eng\_cv.pdf</a>

## **Projects**

## SJ, October 2022 - Ongoing

Full Stack Developer - Java, Spring Boot, TypeScript, React, MUI, Azure, Kubernetes Full stack developer in one of the teams for SJ's vehicle division responsible for the fleet of vehicles in the railyards. The team's system is used for managing and planning operations around the vehicles, used by various types of railyard staff to ensure that the trains are ready for their journeys on the rail network.

The system consists of several services in AKS, Azure's Kubernetes environment. The backend is built with Java Spring Boot. The frontend is built with modern React-Next, with REST APIs connecting to the backend. The backend integrates with other SJ services such as vehicle planning, timetable, company information, and more, via service buses & event grids as well as dedicated MS-SQL Server databases. Work is conducted in an agile manner with a high degree of autonomy.

## Technology:

- Java, Spring Boot, REST, MSSQL, JPA, REST, Azure, MSSQL
- React, TypeScript, MUI
- Azure, Kubernetes, Azure DevOps/CI/CD, Git, Jira, Confluence, Backstage

#### Cepheid, September 2021 - October 2022

Backend Developer - Java, REST apis, integrations.

Cepheid provides systems for detecting diseases for healthcare. I have worked in one of the Solna teams developing software for this. The systems are built up around the instrument hardware, its means for detecting various viruses, and the functionality backing this. The Solna office builds cloud solutions for the instruments which are used for administration, collection of measurement data and visualization of data and also collecting maintenance information. The system consists of rest-apis implemented in spring boot, as well as a user interface in Angular. My main responsibilities have been backend development in two projects during the past year. The tasks have ranged from implementing new functions to solving bugs and implementing major performance improvements. The development work has been agile, divided into four scrum teams.

Technology: Java, Spring boot, Mysql, JPA, REST, Jira, Gitlab, Jenkins, Junit5

#### Brightbee, Feb 2021 - Aug 2021

Full stack developer - Javascript / Nodejs backend, React frontend

Brightbee builds systems to publish real estate ads from on social media. I have integrated Brightbee functions into the CRM system Quedro - Mspecs, which is used by brokers in home sales. An automatic and a manual feed for publishing housing ads on Instagram and Facebook has been built so that it is experienced as part of Quedro's functionality. To enable this, a number of widgets have been embedded in Quedro's interface to provide the broker with

Brightbee functionality, such as publishing, status & statistics, and ad editing. The work has been frontend for user interfaces, and a backend for managing ads and data storage, but also a model for authentication & authorization between the two systems.

Widgets are implemented with React (hooks & context) on the frontend, as well as a number of RESTAPIs with Nodejs, to support these widgets on the backend. Furthermore, a number of webhooks have been integrated to initiate flows such as publishing & unpublishing of objects, etc.

In addition to new development efforts, Brightbee's existing technology stacks have been massaged and improved during the project, such as audit log, simplification of publication, auth etc.

From the Quedro integration, the aim has been to create a general solution that can be used in a broader context and not be specific to Quedro.

In addition to the technical design and implementation, I have also proposed and procured an external supplier to get a modern and interactive graphic design in place.

## Skolverket Swedish institute for education (Gov), Aug 2020 - September 2021

Fullstack developer - Java backend, Angular frontend

At skolverket I have been working as a fullstack developer in the department for Infrastructure and support for business development. I have implemented end user functions for user management and authorization management for internal and external users of crucial skolverket services, such as Statsbidrag and Styrdokument. The work has been based on the current legacy systems for this, but focused on redesign and reimplementation of the functionality, with modern architecture and frameworks such as

- Springboot rest apis, and
- Angular using Material Design as UI framework.

We have worked in a customer centric manner with agile methodologies, and delivered a great user experience in Angular backed by the backend services in springboot. In addition to implementing the functionality, I have also worked with setting up a viable architecture and in discussion with Skolverket, designed the infrastructure as well as CI/CD support.

**Technology:** java, spring boot, Angular, Typescript, Material Design, JEST, puppeteer, javascript, shell script etc.

#### Frisq AB, Feb 2020 - Sept 2020

System developer - java backend

Frisq is a medtech company that builds systems to help healthcare providers digitize their care processes. It handles patients, care plans, activities, meetings, scheduling, organizations, etc. Mostly I have worked with backend development in java-spring, for the Kubernetes environment, but also some devops works. The development work has involved new functions, as well as development of existing functions in the system. The most interesting parts has been

the performance optimization of the patient list, through optimization of JPA models and parallelization of the code. I have also introduced basic system tests with JEST, integrated in build pipelines, as well as configuration and implementation of prometheus / graphana for java in Kubernetes, to get performance and give feedback on how the system operates.

**Technology:** java, spring boot, mariadb, Docker, Kubernetes, Helm, GitLab, Google cloud, Minikube, prometheus, JEST, javascript, shell script etc.

### Net Insight, August 2019 - February 2020

System developers - full stack

Net Insight builds streaming platforms for television and sporting events. At the Edge team, I worked as a full-stack developer with Nodejs & React. We were building a management tool for managing video streams and configuring them, in a multitenant system, with many streaming providers in the same system.

**Technology**: nodejs, pg-sql, Docker, Kubernetes, Helmet, GitLab, Azure, Minikube, React(hooks), Material design

## Soundtrap / Spotify, May 2019 - July 2019

Developer, backend

Soundtrap develops a recording studio for music and podcast production, for the browser and for the mobile platform. I integrated the Crm system Braze (Appboy), along with its campaign toolset, including email and push notifications.

**Technology:** java8, play-framework, mysql

**Fortum / Tingcore**, Nov 2018 - May 2019 System developer in the team "Smartliving"

The project works with Fortum's IOT initiative in smart homes, with a focus on energy measurement and energy visualization. The venture also includes common smart home functions, such as control of lamps, dimmers, radiators and smart wall outlets. Sensors for temperature, humidity, smoke, water, window and door alarm etc. are also handled by the system, and services are built up around these entities. The platform consists of a Raspberry Pi like gateway in the home, cloud services with RESTapis, databases and messaging, as well as end-user and admin apps.

The work is carried out in a feature-oriented manner by various agile teams. The team's role ranges from cloud services, to gateways and apps, throughout the technology stack. Fortum works actively with ux & requirement management close to the customer.

I have been part of one of the development teams and have been responsible for backend

development together with other developers in the team. I have worked with the development of end user functions but also further development of the platform itself. The backend features span both the gateway and the cloud, and often feature integrations to property monitoring systems, such as Caverion obix (HTTP) or Siemens PXC0001 (MODBUS RTU).

The development work is carried out in java & javascript, in a modern continuous delivery environment in amazon (aws). Fortum / Tingcore uses Jira & Bitbucket as the primary project tools. The work is carried out agile with focused deliveries.

### Technology, Cloud:

REST-apis, Java8, Mysql, ActiveMQ, MQTT, Spring, Docker, Aws, ECS, Cognito *Technology, Gateway:* 

Linux, Java8, MQTT, MODBUS, python, bash, Reverse SSH mm.

**Fortum / Tingcore**, Nov 2017 - Nov 2018 System Developer - Team Solar

The markets team was formed as a development resource for product development and testing ideas for the Fortum marketing department.

The team has been working on the following projects during the year.

- A MVP for Fortum customers integrating with Tingcores Chargers for Electric Vehicles, branded "Charge & Drive". The MVP enables automatic linking of Charge & Drive Chargers to Fortum's customers.
  - Technology: Java8, Mariadb, Spring, Rest, Amazon AWS, Oauth2
- 2. Development of "Solar", Fortum's initiative around solar panels and retrieving measurements of energy production. Our part of the system is responsible for collecting metering data from solar panels through a "solar box", a raspberry-like similar Linux machine with MODBUS connection to the solar panels, and making these metrics available to fortum customers through rest apis. Also, we have built a management GUI for managing and troubleshooting the system.

#### Technology:

- Restapis: Java8, Mariadb, Spring, Rest, Amazon AWS, Oauth2
- Solarbox: Linux, Felix OSGi, Java8, MQTT, Docker
- o Admingui: NodeJS, Angular 4
- 3. MVP for home batteries connected to the solar cell solution for storing surplus energy. Same technology as for the solar panels.
- 4. MVP for collection and exposure of measurement data from lowrawan sensors, for instance temperature, humidity, firealarms etc.
  Functionality for data collection via an Amazon Kinesis stream, as well as logic for connecting sensors to Fortum customers and their locations, so the customers can access measurement data for "their" devices. Again, we have built an admin GUI for the system.
  - Technology:

- Restapis: Java8, Mariadb, Spring, Amazon AWS & Kinesis, Elastic search
- Admin GUI: NodeJS, Angular 6,

## **Bisnode AB**, May 2017 - Nov 2017 System Developer

Project: Bisnode Omni

Bisnode Omni is a tool for modern online marketing. Bisnode combines online data with off-line data to for better targeting customers in online campaigns.

The system is built with microservices architecture based on Kubernetes and Docker. I have focused on the front end consisting of Angular 4 and nodejs for communicating with the backend databases, and Rabbit MQ (amqp) as integration tier.

Technology: Angular 4, Nodejs, Express, Java, Spring boot, Git, Docker, RabbitMQ.

**Bisnode AB**, June 2015 - Nov 2017 System Developer

Project: Bisnode Charity - development and maintenance.

"Bisnode Charity" is a solution for the charity industry and is used by "Doctors without borders sweden" (MSF), UNHCR Sweden, Läkarmissionen etc. The system is basically a CRM system and keeps track of donors and their gifts, monthly subscription donations, promotions, marketing features, etc. Integrations are available towards BGC, autogiro, efaktura, skatteverket, a number of email providers, etc. The system offers a graphical user interface, but also REST APIs for external integrators. The work has consisted of various projects:

- Developing new end user functions in the CRM tool
- Evolvement and repackaging the system to cleaner backend functions, via RabbitMQ.
- Design and implementation of event driven execution of tasks via RabbitMQ.
- Development of build environments as well as continuous deployment.
- Investigation for migration strategy to modern front end (React) instead of JSF.
- Introduction of selenium and docker for e2e testing.
- Porting from EJB3 to Spring boot.
- Improve robustness / scaling properties, move to Maria DB cluster.
- Dockerizing of test environments and runtime environments.
- Improving the build chain to support the evolving system.

Technology: Java, Spring boot, JSF, Prime Faces, JPA, MySQL, Git, Selenium, Docker, React, RabbitMQ

**Numerico AB**, March 2017 - April 2017 Developer Project: Measurement

System for QA at Bisnode, for storing and displaying execution times for e2e test scenarios. The data is presented in graphs reported over time. The idea is that when system tests run, the times for the various tests is reported in the system, eg login, logout, or regiser customer. The times for the scenarios are stored and can then be displayed in graphs to see trends, viewed over time.

Technology: React, Redux, HTML5, Foundation CSS, Nodejs, Express, Webpack, Deploy at Cloud Foundry

Rector AB, April 2017 - May 2017

Developer

Project: POC for an Interactive Development Environment to control robotics hardware. Rector constructs robotics hardware and wanted to look into programming the hardware using google's blockly, an interactive programming language designed to teach programming. The project developed a prototype / poc for the environment and implemented it in nodejs & reactjs. The development environment would be deployed in the cloud and accessible everywhere, we used cloud foundry.

The interface embeds the blockly environment, a javascript component, and makes it available to the robot in order to control the robots behavior. The result of the project was a POC with all component components verified, but with limited functionality.

Technology: Google-Blockly, React, Redux, HTML5, Foundation CSS, Nodejs, Express, Webpack, Deploy on Cloud Foundry,

**Frontrow Media AB**, April 2015 - May 2015 System Developer

Project: Pipeline.

Frontend development for a web-based sales support tool built using angularjs. The tool is designed to find prospects for customer processing and shows customers' current appearance / presence on the internet in different channels. The tool has search functionality and communicates with a php backend via rest / json.

Technology: angularjs, javascript, css, php.

**Bisnode AB**, Oct 2014 - June 2015 System Developer Project: G2CM. Maintenance and development of Bisnodes customer club system. Introduction of Continous Delivery with Bamboo. G2CM is a legacy system, ie Java Swing for frontend, J2EE for backend & an oracle database in data storage. Web parts, "My pages", and affiliate features are implemented in Liferay, a java portlet container and content management system (CMS). The system has been lifted to manageable condition with contionus delivery and one-click deploy, with bamboo & git.

Technology: Java, Bamboo, Oracle-db, Liferay, MySQL, Subversion, Git.

#### Bisnode Marknad AB, Nov 2013 - Oct 2014

System developer / tech lead

Project: DM Urval (DM Selection). Frontend development of a web-based search tool combining Google maps and Bisnode's databases for business information. The tool is a in essence a search tool that offers functionality for searching and purchasing contact information for marketing purposes. In logged-in mode, the tool offers services to be able to work with their selections over time such as being able to save them, create surveys, share with others, etc. The application integrates with bisnode databases over company data, but also on internal backoffice user handling and debit systems, both as external payment services for credit card purchases.

Technique: angularjs, javascript, css, grails, git, google maps, open layers, karma, jasmine, protractor, grunt, sass etc.

**Glossappen**, Dec 2011 - Jan 2012 App development iOS / Android

Built an app to train vocabulary to my kids since there were none. First, an iPhone version, then an extended android variant, with network support for sharing lists of friends. After this, a web variant was also built in GWT & html5. All clients against the same backend. Technology: android, java, Objective-c, los, iphone, GWT, Rest, google appengine for server parts, git

**Unibet AB**, Oct 2011 - Nov 2013 System Developer

Worked as a developer in the "Product integration" team that integrate games for Unibet's web site. The integration consists of game start as well as wallet management from third-party gaming providers. This is implemented through external APIs with varying technologies ranging from SOAP & Rest to proprietary protocols. In addition to integrating new clients, a review was made of the team's use of maven and strategy for third party dependencies.

Technology: Rest, SOAP, Spring, Hibernate, Spring MVC, Glassfish, AOP, Jackson, Jersey

Metro AB, March 2011 - Oct 2011

Development Manager / Techlead

Project: Introduced agile methodologies at Metro plus normal development & maintenance activities of Metros web sites <a href="https://www.metrojobb.se">www.allastudier.se</a>, as well <a href="https://www.metrojobb.se">www.metrojobb.se</a>.

Acted as tech lead and agile coach for the team and management. Built the team and introduced agile habits for the team and stakeholders..

Technology: Spring, Hibernate, Solr, Lucene, Spring MVC, jQuery, Mysql, Freemarker, Riot, Tomcat, git

### Paxport Systems AB, Sept 2009 - March 2011

System Developer

Project: Development and management of Paxport's booking system for the airline industry. Technology: Wicket, Swing, EJB3, JPA, JBoss, etc.

Posten, April 2009 - July 2009

System Development.

Project: ETAB2, Establishment of the postal service architecture.

Technology: JBoss, JbossWS (Webservices), EJB3, JPA.

**SJ**, Oct 2008 - April 2009

System Development.

#### Project:

- ITRL, Development of SJ's traffic incident management system. Integration with the timetable functions, as well as optimization and performance analyzes.
- SJ.se, "Your Travel 2". New functionality on sj.se.

Technology: JBoss, Eclipse, Spring, Ajax, Google Web Toolkit (GWT), J2EE, DB2, Hudson, mm.

#### Barkonsult, June 2008

Technical design and construction of e-commerce solution. Integration with SPCS. Technology: JBoss, Eclipse, Spring, Hibernate, Ajax, Google Web Toolkit (GWT), J2EE, MySQL, SOA, JNI, Microsoft C ++

#### Länsförsäkringar bank, Jan 2008 - Oct 2008

System development. Development and maintenance of Länsförsäkringar's internet banking

solution. Spring, J2EE, JSF, Weblogic 8 and 10.

#### **SJ**, 2005-2008

System Development. Development and maintenance of SJ's public ticket sales website, as well as SJ's intranet. Project: Internet Onboard, Hotel Booking, SJPrio, Java Single Sign On (SSO) against Active Directory & Windows 2003 kerberos environment. Environment: JBoss, Websphere, Eclipse, Spring, Hibernate, Ajax, Google Web Toolkit (GWT).

#### **Pressens bild**, 2004-2005

System development. Customizing e-commerce solution for a new image archive. Introduction of adapter for efficient access to external systems and implementation of connection pool with Java Connector Architecture (JCA). Migration to JBoss, porting from WebSphere, improvements of development, operation and deployment environment, etc. Image processing with Java Advanced Imaging, JAI. Restructuring the user interfaces into layered web applications.

#### **Pressens bild**, 2003-2004

System development / troubleshooting. Optimization and Restructuring of Web Applications for Image Sales. J2EE environment (Websphere & db2)

## Sec @ home, 2003

System development. Construction of Guides system for secure connection and communication with the workplace. Builds on integration with existing firewall software, antivirus software, and VPN clients. (Microsoft .net, SQLserver, Devstudio)

#### Pressens bild, 2003

System development. Integration of webshop for image sales and the financial systems. (Oracle Financial, E-business suite).

Automatic order generation and feedback to the web application. J2EE environment (Websphere-db2. Icore as integration engine)

#### **DUFM, FMV** 2002-2003

Developed prototype for FMV's system for handling complex equipment in databases. Client server, Microsoft Visual C ++, ADO, SQL Server.

#### **CWA AB & Brace AB** 1999 -2002

Programming and programming of "GUI designer" which was part of a app-platform with associated Java Application Development Tools, Java, Swing, XML.

#### Net Entertainment AB (NETENT) 1999-2002

Consultant, game development in java, client server, j2ee

## Kinnevik - Net Entertainment AB (NETENT) 1996-1999

Developer. Design and implementation of casino platform in java. Client server, j2ee. Java applets on the client side. Java applications on the server side. Design of games, middleware, backend functions, and monitoring functions.

#### Kinnevik - CCC 1996

Development of Kinnevik's CCC booth terminal for web access. An intenet access windows terminal based on win95 and CCC platform for credit card payments. Microsoft-C ++, MFC, Win32.

#### Kinnevik Infral 1996

Development and maintenance of Infrals information service called "InfoPlus". Among other things, development of email features for text. Introducing internet access for the InfoPlus service.

C, C ++ (gnu), ScoUnix, Linux.

## Länsförsäkringar AB 1995-1996

CTI solutions (Computer Integrated Telephony) in a framework for system development at LF. Component Development in Microsoft C++, OLE (ActiveX), Microsoft Telephony API (TAPI),

#### Telia Data AB 1995

Development of client-server platform for central print management. Server: C / C++, Sybase open server middleware, HP-UX unix, Client: Windows 95, Microsoft Visual C++ to Control Acrobat Reader via DDE.

#### Ellmetel Utvecklings AB 1992-1995

Development of data retrieval and statistics functions for operation and maintenance purposes, for AXE-N. C++ in Unix Environment for the Dicos Operating System, Object Oriented Database, Ericsson-specific proprietary methodology (SDP) based on Jacobsson.

#### Ericsson Telecom AB 1991-1992

Development of Data Collection and Operating and Maintenance Statistics for AXE-10. EriPascal, APN167.

#### **Methods**

Agile, XP, RUP

#### **Industries**

Telecom, Defense, Insurance, Gaming, Media, Communications, Transportation, Bank.

#### Language

## **Certifications**

Scrum Master Sun Certified Web Component Developer (SCWCD) Advanced Certified Java Programs (SCJP) Advanced JBoss

## **Education**

1999-2002

MSc, Computer Science, KTH

1993-1998

University courses, Computer Engineering, KTH

1990 - 1991

Military Education, Union Group Chief

1989 - 1990

Technical ADB Training, ASÖ Gymnasium

1985 - 1989

4 Year Technical High School, ASÖ High School

## **Employments**

Numerico AB, selfowned consultancy	201604-
Cygni AB, Consultant	201103-201604
Paxport Systems AB, Developer	200909- 201103
Guide Konsult Stockholm AB, Consultant	2002 -2009
Freelance Consultant	2000-2002
Kinnevik @, Infral AB & NETENT, Developer	1996-2000
Softronic AB, Consultant	1995-1996
Ericsson Telecom AB, Ellemtel Utvecklings AB	1991-1995
System Developer	

## **Private**

Living in Danderyd just outside Stockholm, is married and has two children. Plays tennis and enjoy sailing.