Sander Jurgens

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ABOUT ME

I am an experienced architect and software developer with a proven track record in translating strategy into reality, result-driven by providing structure to complex problems and enabling teams to reach the desired goals through servant leadership and continuous improvement. I see myself as an analytical, dependable and communicative engineer in the field of computer science, with a passion for sustainable urban infrastructure.

WORK EXPERIENCE

Lead Enterprise Architect — Nederlandse Spoorwegen

Jun 2021 - Present

Responsible for the overall business and IT architecture of the end-to-end process to design, plan, dispatch and execute train operations, including creation and distribution of multimodal travel information.

In addition, managing a functional cluster of Enterprise and Solution Architects (20 FTE).

Achievements:

- Developed a digital strategy together with business and IT stakeholders.
- Assisted the digital transformation to an organisation based on the new strategy.
- Created a resource model to empower architects within the functional cluster.
- Guided the modernisation of all core applications to a cloud-based architecture.

Skills used:

`Digital strategy` `Digital transformation` `SAFe` `Lean` `Agile` `Cloud migration` `RCDA`

Solution Architect — Nederlandse Spoorwegen

Jan 2020 - Sep 2022

Developing and guiding the implementation of the target architecture that aims to decommission the legacy application NS Tracking and Tracing (NTT), whose primary function is to keep the rolling stock dispatching system up-to-date regarding the current activities of rolling stock units.

Achievements:

- Designed a simplified architecture for all 4 functions whilst maintaining functionality.
- Created migration plan that minimized downtime in a business critical environment.
- Worked with internal customers to migrate them to new application interface service.

Skills used:

`PRINCE2` `Solution Intent` `ArchiMate` `Architectural patterns` `Migration planning`

Enterprise Architect — Nederlandse Spoorwegen

Jul 2017 - May 2021

Responsible for the architecture of the train dispatching process, together with my team of 5 Solution Architects. This process encompasses a landscape of 25 applications, developed and maintained by 10 teams, and used by a total of 500 end users in a 24/7 business critical environment.

Achievements:

- Consulted on the implementation of the business program "Be- en Bijsturing van de Toekomst", a part of the governmental MIRT-initiative "Beter en Meer".
- Successfully guided the decommissioning of the main legacy application VKL, through the Besturing 3.0 program.
- Developed a digital strategy outlining the vision for the upcoming 5 years.
- Developed a target architecture for the new hub dispatching subprocess.
- Created full-fledged repository based on the TOGAF and ArchiMate standards.

Skills used:

`Digital strategy` `Process modelling` `SAFe` `Lean` `Agile` `TOGAF` `ArchiMate` `RCDA`

EDUCATION

MSc in Computer Science
Eindhoven University of Technology
Cum Laude, Honors program
2012 - 2014

BSc in Computer Science
Eindhoven University of Technology
Propaedeutics degree Cum Laude
2009 - 2012

Secondary Education (VWO)
O.R.S. Lek en Linge
2003 - 2009

CERTIFICATIONS

TOGAF Foundation
The Open Group (2022)

SAFe Architect
Scaled Agile (2021)

Archimate Practitioner
The Open Group (2019)

SAFe Agilist
Scaled Agile (2017)

Lean Yellow Belt
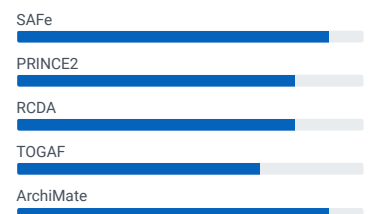NS (2017)
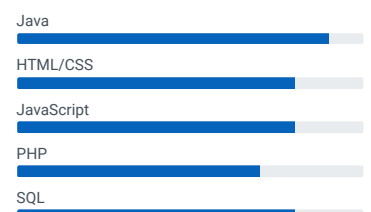
GEA Practitioner
Solventa (2017)

RCDA Practitioner
CGI (2016)

SKILLS

Architect

SAFe

PRINCE2

RCDA

TOGAF

ArchiMate

Developer

Java

HTML/CSS

JavaScript

PHP

SQL

IT Trainee

Nederlandse Spoorwegen

Aug 2015 - Jun 2017

Trainee program consisting of 2 year-long IT assignments at different business units of NS, ending in a formal assessment that determines your future at NS.

During the first year my responsibility was the development and maintenance of multiple algorithms that could solve logistical planning problems. In the second year my responsibilities shifted towards that of a Solution Architect for several projects in the stations and corporate group domains.

Achievements:

- Taught a development team the basics of operational research, so that they could successfully maintain all complex planning algorithms.
- Developed organization chart web application used by hundreds of colleagues daily.
- Developed NS process model that became the basis for our digital transformation.

Skills used:

`Java` `CPLEX` `HTML/CSS` `JavaScript` `D3.js` `ArchiMate` `PRINCE2` `SaaS`

Research Intern

TNO

Feb 2014 - Nov 2014

My thesis, being part of the MSc degree at the Eindhoven University of Technology, was done as an internship at TNO, where I researched the usage of topological and flow-based metrics in the analyzing and improving of network robustness.

Achievements:

Collaboration with the Delft University of Technology and partnered telecom companies was set up as part of TNO program SIIN (Societal Impact of Interdependent Networks).

Skills used:

`Java` `OpenGL` `Proving NP-hardness` `Approximation algorithms` `TeX`

Software Engineer

Rijkswaterstaat

Nov 2013 - Jan 2014

Hired, through TU/e Laboratory for Quality Software, to build a quality assurance framework for analyzing the software behind all Dutch drawbridges owned by the Ministry of Infrastructure and Environment (Rijkswaterstaat).

Achievements:

Through the use of mCRL2 models we tested 100% of all possible code paths against specification and found multiple undiscovered bugs.

Skills used:

`mCRL2` `Formal Methods` `Z notation` `TeX`

Software Engineer

U-Approach

Apr 2012 - Sep 2012

As a graduation project for my BSc degree at the Eindhoven University of Technology, I was part of a group of students that developed a distributed ontology and querying interface, based on RDF-triples and the SPARQL query language.

Achievements:

The resulting storage framework was used for a number of large-scale events, for example the STRP festival of art and technology with 30.000 visitors annually.

Skills used:

`PHP` `Zend` `MySQL` `SPARQL` `ANTLR` `Scrum` `TeX`

LANGUAGES

Dutch (Native)

English (Fluent)

INTERESTS

Boardgames

Cosplay

Fitness