

MAARTEN KROON

SENIOR SOFTWARE ENGINEER

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PROFILE

Senior software engineer and partner at Armatiek BV with extensive experience in designing and developing publication and search solutions. Leveraging over 25 years of expertise, contributed to projects utilizing technologies such as Java Spring Boot, Elasticsearch, Solr and XSLT to support clients in government, legal publishing, and archival sectors. Committed to delivering innovative solutions through collaboration and technical excellence.

EXPERIENCE

Senior software engineer and partner

January 2006 - Present

Armatiek BV

Amsterdam, the Netherlands

Product development for Armatiek and carrying out freelance projects for several customers of Armatiek.

- **Product development:** development of the SaaS "Imvertor", enabling the generation of technical specification documents such as JSON and XML schemas, OpenAPI descriptions and Respec documentation from UML and RDF models following specific metamodels like NEN3610 and MIM. Imvertor is used by organizations including the Kadaster, VNG, TNO, Logius and the Dutch Ministry of Justice and Security.
- **Product development:** development of the SaaS "EAD Service" which enables archival institutions to convert archival inventories created in Encoded Archival Description format into PDF format and publish them on the internet. The EAD service is used by several organizations including the Dutch National Archives and Regional Archives Tilburg.
- **Freelance work:** design and development of publication and search solutions based on open standards such as XML, XSLT, and XML Schema, and open-source technologies including Elasticsearch and Apache Solr. Delivered projects for a variety of clients including Lefebvre Sdu (legal publisher), the Dutch Ministry of the Interior (Logius), the Netherlands Patent Office, the Kadaster (Dutch Land Registry), the National Police, the Dutch National Bank, the Dutch National Archives and several regional and municipal archives.

Senior search specialist and software engineer

April 2022 - July 2025

Lefebvre Sdu

The Hague, the Netherlands

Development of the legal search engine for the legal publisher Lefebvre Sdu utilizing technologies such as Elasticsearch, Java Spring Boot microservices, OpenAPI and GraphQL.

- Development of the "Query Cooker" service that converts user input to an enriched Elasticsearch query using specific domain knowledge, facets, paging, sorting etc. improving legal document retrieval relevance for legal professionals.
- Introduction of Hybrid Semantic Search using Elasticsearch and the vector inference engine DJL serving combining traditional keyword search and vector search improving legal document retrieval relevance for legal professionals.

Senior software engineer search- and publication systems

June 2013 - April 2021

Logius / KOOP (Dutch Ministry of the Interior)

The Hague, the Netherlands

Development of publication and search solutions in the domain of official government publications.

- Development and optimization of high-traffic government search portals including wetten.overheid.nl, verdragenbank.overheid.nl and tuchtrecht.overheid.nl utilizing technologies such as Java, Apache Solr / SolrCloud, XSLT and XQuery.
- Development of a geolocation based notification system utilizing technologies such as Java, Postgres and PostGIS.

Senior software developer

September 2001 - January 2006

Salience

Nieuwegein, the Netherlands

Technical design and implementation of XML-based content management and publication solutions at several customers like the Dutch National Police, the Dutch National Bank and the Delft University of Technology.

Software Developer

Arkey Systems

May 2001 - September 2001

Woerden, the Netherlands

Development of new functionality for the 2D/3D CAD software product Arkey using Borland Delphi.

Software Developer

SDL Tridion

April 2001 - June 2001

Amsterdam, the Netherlands

Design and development of new functionality for the Web CMS software application Tridion DialogServer.

Software Developer

Informaat

July 1997 - April 2001

Baarn, the Netherlands

Design and development of content management solutions for websites of organizations including ABN AMRO, ING, DAS Rechtsbijstand, the Dutch Ministry of Housing and Spatial Planning and Hiltermann Autolease.

Work planner

Wifac

January 1994 - July 1997

Mijdrecht, the Netherlands

Point of contact for clients regarding technical issues, installations, and training in the graphic (prepress) industry.

EDUCATION

Hogeschool Utrecht - HTS Mechanical Engineering

1987 - 1992

Bachelor of Science

Specialization in precision engineering, graduation profile in technical automation

Dr. F.H. de Bruijne Lyceum in Utrecht - VWO

1985 - 1987

VWO diploma

Dr. F.H. de Bruijne Lyceum in Utrecht - HAVO

1980 - 1985

HAVO diploma

PROJECTS

XSLWeb

github.com/Armatiek/xslweb

2001 - Present

Creator & maintainer

- XSLWeb is an open source web development framework enabling XSLT and XQuery developers to develop websites and webservice.

SKILLS

Technical Skills:

Java, Java Development, Spring Boot, Elasticsearch, Apache Solr, Apache SolrCloud, Semantic Vector Search, XML, XML Schema, XSLT, XSL, XSL-FO, XPath, XQuery, JSON, UML, PostgreSQL, Postgres, PostGIS, MySQL, Javascript, XML databases, eXist-db, BaseX, Marklogic, REST, OpenAPI, GraphQL, Microservices, Scrum, Agile, Git, GitHub, Maven, CI/CD, Unit testing, Docker, Docker Compose

Languages:

Dutch - native speaker, English - good, both verbal and in writing

DOMAIN KNOWLEDGE

Legislation and Regulatory Frameworks

- Dutch legislation and regulations, including Official Publications (OP) and the "Basis Wetten Bestand (BWB)"
- Decentralized Dutch legislation and regulations at the municipal, provincial, and water authority levels, including the Central Facility for Decentralized Regulations (CVDR)

Government Implementation and Policy Information

- Implementation, operational, and policy information from Dutch government agencies, including the Dutch Tax and Customs Administration (Belastingdienst), UWV, SVB, Netherlands Healthcare Authority (NZa), and Immigration and Naturalisation Service (IND)
- Experience with the Publication Platform for Implementation Content (PUC)

Archives and Records Management

- Knowledge of archival institutions on both the national and regional level.

Police and Law Enforcement

- Especially knowledge of supraregional search on police reports.