Curriculum Vitae of Bastian Nolte

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IT Business Consultant & Coach Senior Software Architect Expert Full Stack Polyglot Developer(Java, TypeScript, C#, e.g.)



Introduction

My name is **Bastian Nolte**. I have about 24 years of professional experience in the IT field, both as a **consultant**, **trainer/facilitator**, **IT architect** and **software developer**, as well as in project management roles with and without personnel responsibilities.

I see myself more as a **generalist** and supporter than a specialist. My broad knowledge will allow me to help you find and implement efficient **solutions** even for complex problems.

I am looking forward to supporting you in initiating and successfully establishing changes and **innovation processes**.

Currently, I support my clients primarily in consulting, software (development) and **training**. I am happy to help your Organisation in aligning towards **Azure Cloud** and **DevOps** teams.

Abstract

In the last ten years, I have been mainly involved in projects in the insurance, automotive, industry, administration and education sectors. My clients include companies like Capgemini Schweiz AG, the Swiss Accident Insurance Fund (Suva), CSS Health Insurance, Volkswagen, Siemens, msg Systems, T-Systems and various institutions, like the Berlin State Library, the East Asian Institute, and various state authorities and councils.

We use methods, frameworks and mechanisms of agile development, such as Scrum, LeSS, Continuous Integration, test-driven development, mob- and pair-programming, combined with process supporting software like Atlassian JIRA, Confluence and Team City.

I have a wide range of expertise in various programming languages. My preferred languages are TypeScript and F#.

Furthermore, I have many years of experience in project planning and coordination and the administration of various server and cloud services, such as Microsoft Azure.

I am proficient in the use of the most common databases. Knowledge in Spring (Boot), Java EE and various frameworks and libraries, such as MicroProfile, vue.js and Angular, completes my profile.

Information

This Curriculum Vitae is also available as website under https://www.bastian-nolte.name/en/.

The latest version of this document can be downloaded from the web address https://www.bastian-nolte.name/downloads/bastian-nolte-cv.en.pdf.

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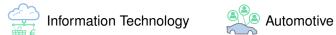
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Sector experience & expertise













IT Service Provider Public Service Educational Institutions



Telecommunications



IT Security

Clients















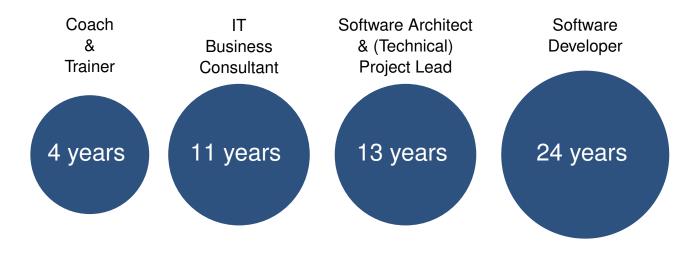








Roles



Personal

Name	Bastian Nolte
Awards	Innovation Award Public Private Partnership 2009 (PPP) for the interdisciplinary use of New Media
IT experience since	1998
Nationality	Germany
Languages	German (mother tongue), English
Applicable	CH-LI (Switzerland, Liechtenstein)
Preferred region of work	Switzerland (or remote)
Leisure activities	mountain hiking, scuba diving, kayaking
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Preferences

(always open to new technologies)

Responsibilities /	architecture in Azure and innovation topics
Programming	Polyglot (according to requirements), e.g. F#, TypeScript
languages	. 3.) g.c. (accessing to requirements), 3.g, 1) pecceript
Platforms	Microsoft Azure Cloud Computing Services
Technologies /	.NET 6, Spring Boot, MicroProfile with Quarkus
Frameworks	
Web applications	According to requirements, e.g. Vue.js, React, Angular
Databases	According to requirements, e.g. Azure Cosmos DB, Neo4j graph database

Professional Development

Regular further education is the foundation of in-depth expertise. Therefore, I am constantly training myself, primarily using the possibilities of the World Wide Web. You can find a list of the most recent further education courses in the following table.

Year	Туре	Organiser
2022	Certified iSAQB module "Advanced Level CLOUDINFRA" Infrastructure, Containers and Cloud-Native** (planned)	open open
2021	Apache Kafka Course 4929: Confluent Training «Apache Kafka Fundamentals»	Confluent
2021	Microsoft Azure Certification AZ-900: Microsoft Certified Azure Fundamentals	Microsoft, Pearson VUE
2020	Kubernetes Certification LFS158x: Introduction to Kubernetes	The Linux Foundation, edX
2020	DevOps Kubernetes Camp Four-day intensive training on Kubernetes and Knative.	Software & Support Media GmbH Erkan Yanar
2019	Conflict Management and Constructive Conflict Resolution	oose Innovative Informatik eG Kim Duggen
2019	Communication & Moderation Techniques in IT	oose Innovative Informatik eG Tina Busch
2019	Certified iSAQB-Modul «Advanced Level DDD» Domain-Driven Design at the Software Architecture Camp	Software & Support Media GmbH Matthias Bohlen
2019	Certified LeSS Basic Training	Valtech GmbH Nils Bernert
2018	w-jax For details see: https://www.bastian-nolte.name/#fortbildungen	Software & Support Media GmbH
2018	Jax Agile Day 2018 For details see: https://www.bastian-nolte.name/#fortbildungen	Software & Support Media GmbH
2018	JavaScript- & AngularDays For details see: https://www.bastian-nolte.name/#fortbildungen	Software & Support Media GmbH

Soft skills

Acting on one's own responsibility	Analysing, Advising, Implementing, Checking / Testing, Improving
Myself	Introspection, Self-efficacy expectation, Personal responsibility, Self-discipline, High perceptiveness
Others	Helpfulness, Empathy, Critical faculties, Language competence
Collaboration	Team player, Fexible, Committed, Professional competence

Know-how

The following chapters will give you an overview of my IT skills

You can find an additional representation as a graph on my digital Curriculum Vitae at https://www.bastian-nolte.name/en/#know-how.

Development (in general)

	/		
Cloud	Microsoft Azure Cloud Computing Services (Microsoft Azure), Kubernetes (k8s), netlify, Azure DevOps Services		
Programming languages	F#, C#, Kotlin, Java, Py	ython	
Frameworks	.NET 6 (.NET Core), S prise Edition (JEE)	.NET 6 (.NET Core), Spring Framework (Spring), Java Platform, Enterprise Edition (JEE)	
Script Languages	TypeScript, JavaScript (ECMAScript, ES)		
	Command Line Interfaces	Bash/ksh/csh/zsh/, PowerShell (PowerShell Core), Regular expressions (RegExp, Regex)	
Databases	NoSQL	Azure Cosmos DB, Neo4j graph database (neo4j), MongoDB	
	Relational databases	MySQL, Oracle Database (Oracle Database Server, Oracle RDBMS), Microsoft SQL Server (MS SQL Server), PostgreSQL	
	Directory services	OpenLDAP (LDAP)	
	Database- / query languages	GraphQL, Gremlin Graph Traversal Machine and Language (Gremlin Graph Query Language), Cypher Query Language, Java Persistence Query Language (JPQL, Jakarta Persistence Query Language), Java Persistence Criteria API, Java Named Queries (JPA Named Queries), Hibernate Query Language (HQL), SQL, PL/SQL, Transact-SQL (T-SQL), LINQ (Language Integrated Query)	
Container containerd, Docker			
Communication	Azure Service Bus, Azure Event Grid, RabbitMQ		
Web	HTML5 (HTML), CSS, Sassy CSS (SCSS, SASS), {less} (lesscss)		
	JavaScript (ECMAScript, ES)	Vue.js, Vuetify (Material Design Component Framework), Angular, React (reactjs), TSX (Typed JSX), Gatsby (gatsbyjs, Static Site Renderer), Apache Cordova, jQuery, Sencha Ext JS, JSON Web Token (JWT), Material Design, Node.js® (node)	

Markup languages	CSS, FXML, HTML (HTML), JavaScript Object Notation (JSON), JSON Schema, Unified Modeling Language (UML), Web Application Description Language (WADL), Web Services Description Language (WSDL), Extensible Markup Language (XML), YAML Ain't Markup Language (YAML), TOML (Tom's Obvious, Minimal Language), Open Graph protocol
Development Environments	JetBrains IntelliJ IDEA, Microsoft Visual Studio Code (VS Code)

Microsoft Azure

Microsoft Cloud Adoption Framework für Azure Azure Enterprise Integration Platform as a Service		
Azure API Management		
Azure App Service	Azure Web Apps, Azure Static Web Apps, Azure Function Apps, Azure Durable Function Apps, Azure Container Apps	
Container	Azure Container Instances (ACI), Azure Container Registry (ACR, Docker registry service)	
Integration	Azure Event Grid, Azure Service Bus, Microsoft Graph	
Data	Azure SQL Database, Azure Cosmos DB, Azure Storage account	
Azure Monitor	Log Analytics workspace, Application Insights	
Azure DevOps Services	Azure Pipelines (Build, test and deploy with CI/CD), Azure Repos (cloud-hosted private Git repositories), Azure Artifacts	
Infrastructure as code	Azure Resource Manager (ARM), Azure Resource Manager templates (ARM templates), Bicep, Terraform (infrastructure as code software, IAC)	
Configuration	Azure App Configuration (Fast, scalable parameter storage for app configuration), Azure Key Vault	

Java, Scala und JVM (in detail)

JavaSE	GraalVM, AspectJ		
	API / Libraries	Apache Commons, Apache Collections, Apache DeltaSpike, Apache Log4J (Log4J), Apache Lucene, Apache Solr™, Apache POI (Java API for Microsoft Documents), Aspose Cells, Aspose PDF, Aspose Words, Elasticsearch, Google Guava, Simple Logging Facade for Java (SLF4J), JavaFX, Swing GUI-Toolkit (Swing)	
Java EE / Jakarta EE	Frameworks / API	Java Platform, Enterprise Edition (JEE), Primefaces, Hibernate, EclipseLink (Eclipse Toplink, Toplink)	
	Management and Security Technologies	Java Authentication and Authorization Service (JAAS)	

	Web Application Technologies	Java API for WebSocket, Java API for JSON Processing (JSON-P, JSR 374 Specification), Java Servlet, Java Server Faces (JSF), JavaServer Pages (JSP, Jakarta Server Pages), Expression Language (EL)
	Web Services Technologies	Java API for RESTful Web Services (JAX-RS), Java API for XML Web Services (JAX-WS), SOAP
	Enterprise Application Technologies	Contexts and Dependency Injection (CDI), Java Bean Validation (JSR 303), Enterprise JavaBeans (EJB), Java Persistence API (JPA), Java Transaction API (JTA), JavaMail API, Java Message Service (JMS)
	(Application) Server	Quarkus (Supersonic Subatomic Java), IBM WebSphere Application Server (WSA), Oracle WebLogic Server (WLS), Glassfish, WildFly Application Server, Apache TomEE (Java EE Web Profile Implementation)
Eclipse MicroProfile	Technologies	OpenAPI, MicroProfile Fault Tolerance, MicroProfile Health, JWT RBAC for MicroProfile, MicroProfile OpenTracing, MicroProfile Service Mesh
Scala	Frameworks	Play Framework, Slick (Functional Relational Mapping for Scala)

Toolset

Version management / SCM	Git, Atlassian Bitbucket (Bitbucket, Stash), Liquibase (Database Refactoring)
Test automation	Jest (JavaScript testing framework), Cypress (JavaScript End to End Testing Framework), JUnit, xUnit.net, TestNG (Testing Framework), Mockito, EasyMock, PowerMock, Hamcrest, DbUnit, H2 Database Engine (H2), Arquillian, Arquillian ShrinkWrap (ShrinkWrap), Arquillian Drone, Arquillian Graphene, Selenium, Selenium Grid (Grid), Karma Test Runner (Karma), Jasmine Modultest-Bibliothek (Jasmine), Protractor end-to-end test framework (Protractor), \$httpBackend, SonarQube, SoapUl, Postman, FindBugs TM , Lint
Build Tools	Apache Maven (Maven), Gradle Build Tool, Jenkins (Hudson), Jenkins Pipeline, TeamCity CI/CD, npm, Gulp (gulpjs, workflow automation and enhancement), Bower (package manager), Docker, Yarn - Package Manager, JRebel
Coordination / Support	Atlassian Jira Cloud (Jira), Atlassian Jira Server (Jira), Tempo für Jira, Microsoft Project, HP Application Lifecycle Management (HP ALM)
Documentation	Adobe Framemaker, Atlassian Confluence (Confluence)
Prototyping	Adobe XD, Figma
Projektarchitektur	SparxSystems Enterprise Architect (Enterprise Architect), Microsoft Visio Professional, OmniGraffle
Microsoft Office	Microsoft Word, Microsoft Excel, Microsoft PowerPoint

SAP	SAP CRM (Customer Relationship Management), SAP ERM (Enterprise Resource Planning, Finance, Human Resources, Manufacturing, Logistics, Services, Procurement), SAP CATS
Logging, monitoring and reporting	Splunk

Design Patterns & Principles

Architectural pattern	Atomic design, Model view controller (MVC), Model view presenter (MVP), Event-driven architecture, Service-oriented architecture (SOA), Command query responsibility segregation (CQRS), Enterprise architecture, Publish–subscribe pattern, PRPL pattern (Push (or preload), Render, Precache, Lazy Load)
Analysis pattern	Domain driven design (DDD), Event sourcing (ES)
Creational design pattern	Singleton pattern, Prototype pattern, Factory method, Builder pattern
Structural Design Pattern	Adapter pattern, Composite pattern, Decorator pattern, Proxy pattern, Facade pattern, Bridge pattern, Data Access Object (DAO), Data Transfer Object (DTO)
Behavioral Design Pattern	State pattern, Strategy pattern (policy pattern), Visitor pattern, Memento pattern (Token pattern), Observer pattern, Null object pattern, Circuit breaker pattern
Concurrency pattern	Double-checked locking, Thread pool pattern, Readers-writer lock
SOLID principles	Single responsibility principle, Open–closed principle (OCP), Liskov substitution principle (LSP), Interface-segregation principle (ISP), Dependency inversion principle (DIP)
Distributed computing	Saga Transaction Pattern (Saga distributed transactions), Throttling pattern, Static content hosting pattern
Sharding Pattern	Range-based sharding pattern, Vertical Sharding Pattern, Hash-based Sharding

Unix server management

Operating systems	Debian GNU/Linux (Debian), Red Hat Enterprise Linux (RHEL), Fedora, OpenBSD
Services	Apache HTTP Server, Apache Tomcat® (cluster) (Tomcat), SonarQube, Jenkins (Hudson), Squid Cache & Proxy Server (squid), Postfix (Mail Transfer Agent, MTA), Exim Internet Mailer (Exim), Cyrus IMAP, AMaViS (A MAil Virus Scanner), Clam AntiVirus (ClamAV, clamd), OpenLDAP (LDAP), MIT Kerberos-Server, free RADIUS (RADIUS, Remote Authentication Dial-In User Service), DansGuardian, ProFTPD (Highly configurable GPL-licensed FTP server software), Apache SpamAssassin, Samba File- & Print Server (smb, cifs), DHCP daemon (dhcpd), BIND Nameserver (bind, DNS Server), Network Time Protocol Deamon (ntpd), Pluggable Authentication Modules (pam, pamd), Network File System Deamon (nfs), iptables, Simple Network Management Protocol Deamon (snmpd), SNORT (Network Intrusion Detection System, Network Intrusion Prevention System, NIDS, NIPS), Nagios (The Industry Standard In IT Infrastructure Monitoring, IT Infrastructure Monitoring)

Project excerpts

The following chapters present my work profile to date using project extracts as examples. The presentation is in tabular form and includes my role in the respective projects, including a description of the projects, the technologies and the tools used.

Azure Data Aggregation & Curation Solution

Planning, implementation and operation of a data aggregation & curation application using Microsoft Azure Cloud Computing Services

Role	Full Stack (Analysis > Architecture » DevOps: Development > Deployment > Operations)
Period	Since July 2021
Activities performed	 Planning of the entire solution Elaboration of a solution architecture Building source code management as a monorepo with Yarn Workspaces Azure Enterprise Integration Platform as a Service Identity and access management with Azure Active Directory Implementation of a web application with Vue.js, Azure Static Web Apps and Azure Function Apps Azure Function Apps for scraping, aggregation, curation and sending to Slack channels Azure Cosmos DB for data storage Propagation of business events via Azure Event Grid (event-driven architecture) Slack App, Slack Block Kit for messaging Provisioning infrastructure via Azure Resource Manager and Bicep Continuous Integration and Continuous Deployment with Azure DevOps Services

Technologies / Products

Microsoft Azure Cloud Computing Services	Azure Active Directory (Azure AD), Azure API Management, Azure Function Apps, Azure Durable Function Apps, Azure Cosmos DB, Azure Event Grid, Azure Monitor, Azure Resource Manager (ARM), Azure Resource Manager templates (ARM templates)
Client / Frontend (SPA)	Vue.js, Pinia, HTML5 (HTML), CSS, axios
Backend	OpenAPI, TypeScript, axios, XPath
Build Toolchain	Azure DevOps Services, Terraform (infrastructure as code software, IAC), Node.js® (node), PowerShell (PowerShell Core), Yarn - Package Manager
Tools for test-driven development	Jest (JavaScript testing framework), Cypress (JavaScript End to End Testing Framework)
Development Environments & Tools	Microsoft Visual Studio Code (VS Code), Azure Functions Core Tools, Postmar

A platform for brokering tickets of Swiss attractions

This project was about planning and implementing a platform for the central distribution of tickets of Swiss attraction providers via a common it-platform. In addition to offering tickets, we implemented features such

as weather information, opening hours, ride times, and billing.

In this startup project, I had a multifunctional role. Initially, I was mainly involved in consulting and training to then subsequently support the setup of an Azure cloud environment and the development of the overall solution (hands-on).

In the beginning, I provided training on process models from project organization, such as SCRUM and Kanban. Then, in joint workshops, we evaluated which software best met our requirements. We then set up this software together and integrated its use into our daily processes.

After introducing essential tools such as Atlassian Jira, Confluence, Mural and Zoom, we moved towards more development-related topics.

In the second phase, we continued to build understanding and technical foundations for agile software development in workshops. Topics included continuous integration and deployment, the test pyramid, and code quality topics such as SOLID, TDD, mob and pair programming, and KISS.

In the third phase, we jointly designed and implemented a minimum marketable product (MMP). We built the development and integration environments, configured and provisioned the Azure cloud resources and performed the software development. In the grid below, you will find information on the technologies used.

Role	Multifunctional role (consulting, teaching, hands-on)
Period	September 2019 - December 2020
Activities performed	 Consulting Training Introduction CI/CD with Azure DevOps Introduction Azure Cloud Computing Hands-on development of the MMP

Technologies / Products

•	
Microsoft Azure Cloud Computing Services	Azure Active Directory B2C (Azure AD B2C), Azure Function Apps, Azure Durable Function Apps, Azure Web Apps, Azure SQL Database, Azure Monitor, Azure API Management, Azure Event Grid, Azure Service Bus
Client / Frontend	Angular, Angular CLI, NgRx (reactive state for angular), RxJS, Angular Material, HTML5 (HTML), CSS
Backend	OpenAPI, .NET 6 (.NET Core), F#, C#
Build Toolchain	Azure DevOps Services, Github, Azure Resource Manager (ARM), Azure Resource Manager templates (ARM templates), Bicep, Node.js® (node), PowerShell (PowerShell Core)
Tools for test-driven development	Karma Test Runner (Karma), Protractor end-to-end test framework (Protractor), Jasmine Modultest-Bibliothek (Jasmine), TSLint
Development Environments & Tools	Microsoft Visual Studio Code (VS Code), Azure Functions Core Tools, Figma, NuGet, Yarn - Package Manager

Curriculum Vitae

Planning and implementation of this Curriculum Vitae / Résumé website.

Role	Full Stack (Analysis > Architecture > Development > DevOps)
Period	November 2020 - February 2021

- Planning of the new résumé page
- Solution architecture design
- Research and selection of technologies to be used
- Texts & (vector) graphics creation
- Setting up Continuous Integration
- Setting up Continuous Deployment
- Implementation of website & PDF generation...
- ...from a «single source of thruth»
- ... based on state-of-the-art technologies (Gastby Static Site Renderer, HTML-5)
- Rollout and operation

Technologies / Products

Gatsby (gatsbyjs, Static Site Renderer), React (reactjs), Sassy CSS (SCSS, SASS), HTML5 (HTML), CSS, TypeScript, JavaScript (ECMAScript, ES), TSX (Typed JSX), JSX, JavaScript Object Notation (JSON), JSON Schema, YAML Ain't Markup Language (YAML), TOML (Tom's Obvious, Minimal Language), Scalable Vector Graphics (SVG, skalierbare Vektorgrafik), Open Graph protocol, GraphQL, Latex, TeX Live, netlify, Git, Github, Docker, continuous integration, continuous delivery, Azure DevOps Services, JetBrains IntelliJ IDEA, Google Analytics, Jamstack, PRPL pattern (Push (or preload), Render, Pre-cache, Lazy Load)

CSS Insurance

(2018 - 2020)

CSS Insurance is not just a health insurance company but an insurance company for every situation in life. When it comes to health, around 1.7 million people place their trust in CSS. Its wide range of products includes health, accident and property insurance.

Excellence and Innovation

Consultant and trainer for innovation, as well as software excellence and craftsmanship

From 2018 to 2020, I supported CSS Insurance in various areas. I promoted the further development of employees in my stream towards even more excellence and know-how by planning and conducting training and workshops on excellence and innovation topics.

I also supported and actively participated in introducing mob and pair programmings, mainly on software craftsmanship and software excellence.

Furthermore, I supported the client in the development areas of front-end and back-end development and DevOps to initiate the transition into the world of cloud computing.

I helped my SCRUM teams analyse concrete problems, find solutions and implement them while adhering to best practices, and provided advice to the teams and lead architects of my stream.

Role	Consultant and trainer for excellence and innovation topics
Period	October 2018 - June 2020

- Conducted workshops and training:
- Software Development in the Mob "Methodology and Implementation".
- Coding Dojos on various software craftsmanship topics and excellence topics, such as test-driven development (TDD), clean code and SOLID principles.
- Introduction to Domain-driven Design (DDD)
- Fullstack development under MacOS
- The basics of the programming language Kotlin
- Programming with "observable streams" and ReactiveX
- High-performance microservices with Quarkus and GraalVM
- Introduction to Docker and Kubernetes
- Continuous Integration with Microsoft Azure DevOps Pipelines
- Introduction to Microsoft Azure Cloud
- Front-end development in Angular, React, Vue.js with Flow/Redux/NgRx and Immutables

Technologies / Products

•	
Client / Frontend	React (reactjs), JSX, Vue.js, Angular, TypeScript, Apache Cordova, HTML5 (HTML), CSS, Sassy CSS (SCSS, SASS), JavaScript (ECMAScript, ES), JavaScript Object Notation (JSON), Material Design
Client Build Toolchain	npm, Node.js® (node), TeamCity CI/CD
Middleware / Backend	Kotlin, Java Platform, Enterprise Edition (JEE), Microsoft Azure, in detail: Quarkus (Supersonic Subatomic Java), GraalVM, Enterprise JavaBeans (EJB), Java Persistence API (JPA), Java Transaction API (JTA), Java Named Queries (JPA Named Queries), Java Message Service (JMS), Java API for XML Web Services (JAX-WS), Java API for RESTful Web Services (JAX-RS), Contexts and Dependency Injection (CDI), IBM WebSphere Application Server (WSA), Airlock Web Application Firewall (WAF), Apache Commons, Apache Collections, Apache Log4J (Log4J), Simple Logging Facade for Java (SLF4J), Java Authentication and Authorization Service (JAAS), SQL, PL/SQL, Microsoft Azure Cloud Computing Services (Microsoft Azure)
Server Build Toolchain	Apache Maven (Maven), TeamCity CI/CD
Tools for test-driven development	code quality tools & continuous delivery & version control SonarQube, Lint, Docker, Azure DevOps Services, Git, Atlassian Bitbucket (Bitbucket, Stash), Github, Splunk
	Server Arquillian, H2 Database Engine (H2), JUnit, Mockito, PowerMock, Hamcrest
	Client Karma Test Runner (Karma), Protractor end-to-end test framework (Protractor), Jasmine Modultest-Bibliothek (Jasmine), Selenium Grid (Grid), Jest (JavaScript testing framework)
Development environments & tools	JetBrains IntelliJ IDEA, Oracle SQL Developer, Postman, MacOS, Microsoft Windows 10 (Windows 10)
Agility toolchain	Atlassian Jira Server (Jira), Atlassian Confluence (Confluence), Atlassian Bitbucket (Bitbucket, Stash)

SUVA Accident Insurance

(09/2015 - 12/2017)

From September 2015 to December 2017, I was involved in various projects at Swiss Accident Insurance

Fund (Suva).

The Swiss Accident Insurance Suva is an essential part of the Swiss social security system. As an independent company under public law, Suva insures people at work and in their leisure time. Its prevention programmes in occupational and leisure safety prevent accidents and occupational illnesses, promote a safety culture in companies, raise awareness of hazards, and motivate people to take personal responsibility.

In the following chapters, I will break down the projects I was able to accompany at Suva.

Risk Pricing

In the RiskPricing programme, the processes for premium assessment and the systems for setting premium rates were redeveloped, taking into account the industry, risk community, bonus-malus and experience rating, and new large claims and reinsurance solutions were also implemented.

A solution was created for analysing the current risk situation and the financial situation, taking into account information from the risk information system and the adcubum SYRIUS insurance software, based on which the premium situation can be assessed and the reduction of compensation reserves calculated.

With the inclusion of the bonus-malus models and the experience rating, simulations can be carried out to set the premium rates in occupational accident and non-occupational accident insurance lines. In addition, the calculation and creation of the basic sheets and the generation of the raw data for digital printing in the context of customer communication take place in the newly created system.

Role	Application architect and lead developer in a SCRUM team with 8 developers
Period	October 2016 - December 2017 (working at suva since 2015)
Activities performed	 Support the Scrum Master and the solution architect in the rough estimation of the project effort and identify possible project risks. Advise the project manager and the project owner about conceivable implementation variants of the requirements from the technical concepts. Data modelling of the application part of the "grundlagenblatt" calculation (the injurance policy). Design and implementation of the prototype as a proof of concept, as well as significant parts of the application, especially the reusable components, both in frontend and backend. Training of team members on Java (especially the Streaming API and Lambda Expressions), Java Enterprise Edition and in the use of modern web technologies (especially TypeScript and Angular). Imparting knowledge on the use of modern toolchains, especially for the realisation of test-driven development (in detail the implementation and execution of module, integration and e2e tests), as well as on continuous development and delivery.

Technologies / Products

Client	HTML5 (HTML), CSS, Sassy CSS (SCSS, SASS), Angular, TypeScript, JavaScript (ECMAScript, ES), Angular UI Grid, JavaScript Object Notation (JSON), RESTretto-Framework, Apache HTTP Server
Client Build Toolchain	npm, Node.js® (node), Jenkins (Hudson)

Middleware / Backend	Java Platform, Enterprise Edition (JEE) und Java SE, in detail: Enterprise JavaBeans (EJB), Java Persistence API (JPA), Java Transaction API (JTA), Java Named Queries (JPA Named Queries), Java Persistence Query Language (JPQL, Jakarta Persistence Query Language), Java Message Service (JMS), Java API for XML Web Services (JAX-WS), Java API for RESTful Web Services (JAX-RS), Contexts and Dependency Injection (CDI), Expression Language (EL), Aspose Cells, Aspose PDF, Aspose Words, Oracle WebLogic Server (WLS), Oracle Service Bus, Airlock Web Application Firewall (WAF), Apache Commons, Apache Collections, Apache Log4J (Log4J), Simple Logging Facade for Java (SLF4J), YAML Ain't Markup Language (YAML), Apache DeltaSpike, Java Authentication and Authorization Service (JAAS), JSON Web Token (JWT), Kerberos, Single Sign-on (SSO), RESTretto-Framework, Web Services Description Language (WSDL), Web Application Description Language (WADL), SQL
Server Build Toolchain	Apache Maven (Maven), Apache Ant (Ant), Jenkins (Hudson)
Tools for test-driven development	code quality tools & continuous delivery & version control Jenkins (Hudson), Jenkins Pipeline, SonarQube, Lint, Docker, Git, Liquibase (Database Refactoring), Splunk
	Server Arquillian, Arquillian ShrinkWrap (ShrinkWrap), DbUnit, H2 Database Engine (H2), JUnit, Mockito, PowerMock, Hamcrest
	Client Karma Test Runner (Karma), Protractor end-to-end test framework (Protractor), \$httpBackend, Jasmine Modultest-Bibliothek (Jasmine), Selenium
Development environments & tools	JetBrains IntelliJ IDEA, Eclipse IDE, Oracle SQL Developer, Postman, SoapUI
Operation Systems	Red Hat Enterprise Linux (RHEL), Microsoft Windows 10 (Windows 10)
Agility toolchain	Atlassian Jira Server (Jira), Atlassian Confluence (Confluence)
Third-party systems	Informatica PowerCenter (ETL), Oracle Business Intelligence Enterprise Edition (OBIEE), Oracle OLAP (OLAP), Oracle Application Express (APEX), Oracle Business Intelligence Publisher (Oracle BI Publisher), adcubum SYRIUS (Assekuranzsoftware)

iComm Konnex

In the iComm Konnex programme, various projects were implemented using the newly developed suvainternal framework RESTretto.

Role	Full stack developer in a Scrum team
Period	September 2015 - August 2016 (bis 2017 bei der Suva)
Activities performed	 Primarily, full stack development with Java EE and Angular, including Type examination certificates (administration and web application) Limit values at the workplace (administration and web application) Contacts and addresses / agency search (web application) further details on request

Capgemini Schweiz AG

Support in the run-up to the production roll-out of an IT system for a leading global provider of solutions for access control and locking systems in the security industry, which gradually replaced and consolidated the core systems of the country subsidiaries.

Role	Senior developer, client co-architect, IT consultant
Period	December 2014 - October 2015
Activities performed	 Conception, creation, integration and documentation of new core components for the client application. Optimisation of the project's own table component: sorting and filtering, as well as significant increase in performance with very large data volumes. Troubleshooting and optimisation of existing client core components. Consultation on implementation and performance issues. Documentation and best practices.
Technologies / Produc	ets
	Java 1.7, Spring Framework (Spring), Microsoft SQL Server (MS SQL Server), Apache Tomcat® (cluster) (Tomcat)
Middleware/Server	Spring Boot Spring Data, Contexts and Dependency Injection (CDI), Web Services Description Language (WSDL), Java Persistence API (JPA), Hibernate, SAP ERP-Anbindung via WebService und JMS, Apache Commons, AspectJ, Java Named Queries (JPA Named Queries), Transact-SQL (T-SQL)
Client	Java 1.7, Swing GUI-Toolkit (Swing), Spring Remote, Quasar, Apache Commons, Apache Collections
Testing	JUnit, Jenkins (Hudson), continuous integration, FindBugs™
Toolset	JetBrains IntelliJ IDEA, AspectJ, Apache Maven (Maven), Apache Subversion

Automotive - Volkswagen AG

(Oktober 2011 - August 2014)

From October 2011 to August 2014, I worked on various projects for Volkswagen AG (including Audi). I will discuss the projects in detail in the following chapters.

(Subversion), SparxSystems Enterprise Architect (Enterprise Architect)

JavaFX Application Framework

Architecture and lead development of an application framework for the client platform based on Java and JavaFX

Role	Architect, lead developer
Period	March 2014 - August 2014 (Oktober 2011 - August 2014 at VW)

- Conception, creation and documentation of a JavaFX application framework, which realises the user interface according to the MVC principle.
- Optional configurative or programmatic generation of dashboards, favourite control, breadcrumbs, ribbon panels and search function from a group and module configuration.
- Localisation and internationalisation, validation, as well as visualisation and handling of pending changes.
- Multistage support, i.e. window-support, as well as drag and drop between these windows.
- Central exception handling is realised by displaying corresponding message dialogues. Both the display of technical messages and error dialogues to handle unexpected problems, including the option of sending emails, are supported.
- Life-cycle management takes care of starting and stopping use cases and provides functions for loading and saving data.
- Message-bus for targeted communication between the framework and use case controllers, as well as between the use case controllers themselves.
- In addition to creating a modern and intuitively usable interface, the focus during design and development was on creating a framework that enables the simple implementation of use cases while avoiding code redundancies.

Technologies / Products

Java 1.8, JavaFX, ControlsFX, Apache Commons, JetBrains IntelliJ IDEA, Apache Maven (Maven), Apache Subversion (Subversion), Jenkins (Hudson), SonarQube, Atlassian Jira Server (Jira), Atlassian Confluence (Confluence), HP Application Lifecycle Management (HP ALM)

Apache Commons, Google Guava, Atlassian Jira Server (Jira), HP Application

Anlauf- & / Eigenschaftsplanung

Architecture and implementation of a library as well as the client platform (fat client) for the start-up planning of the production of new vehicle models for a large German car manufacturer. Development of the client architecture, as well as lead development client, and co-development middleware and backend.

Role	Architect (client), lead developer (client), developer (middleware and backend), consultant
Period	September 2013 - August 2014 ((Oktober 2011 - August 2014 at VW))
Activities performed	 Swing client, which implements the user interface according to the MVC principle.
	 Communication with the middleware via Hessian Binary Web Service Protocol with Spring.
	- Focus on client architecture, performance optimisation and code cleaning.
Technologies / Produc	ets
	Java 1.6, Swing GUI-Toolkit (Swing), Spring Framework (Spring), Hibernate, Eclipse IDE, IBM WebSphere Application Server (WSA), Apache Maven (Maven), Oracle Database (Oracle Database Server, Oracle RDBMS), Apache Subversion (Subversion), Apache POI (Java API for Microsoft Documents),

Lifecycle Management (HP ALM)

CO₂ and weight reduction

Further development, bug fixing, refactoring and architectural realignment of a platform for planning and evaluation, as well as calculation and controlling of innovation projects in the automotive sector (primarily CO₂ and weight reduction) of a large German car manufacturer

Role	Architect (Life Cycle and Client), Full-stack Developer, Consultant
Period	October 2011 - September 2013 (October 2011 - August 2014 at VW)
Activities performed	 Focus on architecture, performance optimisation and code cleaning of the existing application. Implementation of new features in a Swing-Fat-Client, which realises the user interface according to the MVC principle. Creation of a huge high-performance table component that performs complex calculations and enables the filtering and aggregation of data. Use of user interface controllers and use case controllers. Communication with the middleware via command channel using the Hessian Binary Web Service Protocol. Use of UML, Business Objects, Value Objects, Value Object Assembler, Data Transfer Objects, Data Access Objects, Mementos.

Technologies / Products

Java 1.6, Java Platform, Enterprise Edition (JEE), Swing GUI-Toolkit (Swing), Spring Framework (Spring), Spring Remote, Hibernate, Eclipse IDE, IBM WebSphere Application Server (WSA), Apache Maven (Maven), Apache Ant (Ant), Oracle Database (Oracle Database Server, Oracle RDBMS), Apache Subversion (Subversion), OSGI, Apache POI (Java API for Microsoft Documents), Apache Commons, Apache Collections, HP Application Lifecycle Management (HP ALM), PL/SQL

InSecMa Solutions

(2002 - 2017)

InSecMa Solutions is a software company that deals with the creation of individual software and the planning, installation, configuration and operation of networks and Unix system infrastructures.

Its customers include public authorities, institutions and clients from industry. The company also develops and sells a Linux distribution for schools based on Debian GNU/Linux.

I am the founder of the company, which was founded in 2002. I have supervised the company's projects from an architectural point of view, in addition to my work as managing director. In the following, I will discuss some of the company's projects.

Licence Manager

Development of a licence manager as a web-based Java EE application with an integrated SOAP interface, which enables the administration of software and customers with regard to the management of software licences. It is a classic administration application that relies primarily on input masks. The product is currently used to administer about 150 servers at 120 locations with about 60,000 connected client workstations.

Role	Projektleiter, Full Stack Architekt
Period	February 2010 - October 2010

- Dynamic management interface (Ajax, Primefaces, Prettyfaces)
- Administration of customers, locations and contacts
- Software management
- Allocation of licence keys
- Signing and encryption
- PDF creation
- Communication with software to be installed via SOAP interface
- Java, PHP and Python client

Technologies / Products

Java Platform, Enterprise Edition (JEE), Java Server Faces (JSF), Prettyfaces, Primefaces, Contexts and Dependency Injection (CDI), Enterprise JavaBeans (EJB), Java Persistence API (JPA), Java Named Queries (JPA Named Queries), EclipseLink (Eclipse Toplink, Toplink), Java Transaction API (JTA), Java Authentication and Authorization Service (JAAS), SOAP, MySQL, Glassfish, Apache Maven (Maven), SonarQube, GNU Privacy Guard, Trac Integrated SCM and Project Management (trac)

BMBF Pilot Project Sys-C

System solution for the schools of the city of Chemnitz to support the interdisciplinary use of new media (Sys-C).

As part of the Sys-C project, we developed a solution to support the interdisciplinary use of new media at schools in the city of Chemnitz. The Federal Ministry of Education and Research and the European Social Fund funded the project. The project management agency is the German Aerospace Center (DLR), more precisely the Project Management Agency New Media in Education (PT-DLR, Project Management Agency - part of the German Aerospace Center). We developed a uniform system software for school use in lessons for approximately 85 schools.

Role	Project Manager, Solution Architect
Period	February 2005 - December 2015 (Development of 1st version: 2005 - 2007)

- Graphical user interface (GUI) to administrate users, classes, courses and projects, computer rooms and computers, as well as printers.
- User management, including bulk import, automatic transfer of students and support of various customisable user roles.
- Generation of initial passwords or use of default passwords.
- Automated integration of workstation computers.
- File server for Microsoft Windows, Linux and Mac OS X workstations.
- DHCP and DNS server, including automatic configuration without user intervention.
- Support of Windows workstations in domain and workgroup mode.
- Support of Mac OS X and Linux clients.
- Person-, class- and course-related file quota, as well as mail quota.
- Email server including web-based groupware application with address book, calendar and reminder function.
- Room- and user-based internet access control, including child and youth protection filters.
- Virus scanner for file server, email server, and Internet access (HTTP and FTP)
- Distribution and collection of class and project work (classwork function).
- Printer administration, including print account solution for network printers and printers released via workstations.
- CD-ROM archive.
- Database, time and web server.
- Fully automatic update function that keeps the servers up to date without user intervention.
- Support of various presets, such as the automatic creation of initial passwords or the setting of user quotas.
- Batch processing functions (e.g. reset quota for a specific user selection).
- Didactic screen control solution.
- Monitoring of individual workstations.
- Tracking of all workstations in a computer group.
- Screensharing to a single workstation.
- Screensharing to all workstations of a computer group.
- Locking the mouse and keyboard of a workstation.
- Locking the mouse and keyboard of a group of workstations.
- Server-based client inventory.
- Automatic software distribution for Windows, Max OS X and Linux.

Technologies / Products

Debian GNU/Linux (Debian), PHP, Python, Perl, JavaScript (ECMAScript, ES), PyQT, QT, Visual Basic Script (VBScript, VBS), Apache Subversion (Subversion), iptables, BIND Nameserver (bind, DNS Server), Apache HTTP Server, Squid Cache & Proxy Server (squid), DansGuardian, Exim Internet Mailer (Exim), Cyrus IMAP, Pluggable Authentication Modules (pam, pamd), OpenLDAP (LDAP), MySQL, Moodle, DHCP daemon (dhcpd), Network Time Protocol Deamon (ntpd), Samba File- & Print Server (smb, cifs), Kerberos, Clam AntiVirus (ClamAV, clamd), AMaViS (A MAil Virus Scanner), Open Technology Real Services (OTRS, Open Ticket Request System)

Server Infrastructure SBB/SPK

Stiftung Preussischer Kulturbesitz, Staatsbibliothek zu Berlin

As part of a conversion of the web services of the Berlin State Library to a high availability solution, we planned, installed, configured and maintained various services.

Role	Project Manager, Solution Architect
Period	June 2003 - December 2010
Activities performed	 Planning, configuring and operating a multi-redundant web server system, based on Debian GNU/Linux operating systems, combined with Apache web servers and a high availability cluster software. Usage of redundant server components as well as data storage. Developing a backup strategy and set-up of backup and disaster recovery tools. Bastion host system design. Usage: > 1.5 million site visits / month. Development and support various web-based solutions for the Prussian Cultural Heritage Foundation, the Berlin State Library, and Berlin's National Museums. Web frontend server for the book ordering system of the Berlin State Library based on Linux. Extension to SCO compatibility. Attachment of various security tools for use as a bastion host. Installation of a new email server cluster based on Postfix, migration of approx. 1000 users. Web application that allows central access to contents of various worldwide distributed databases of East Asian manuscripts (http://crossasia.org).

Technologies / Products

Debian GNU/Linux (Debian), Apache HTTP Server, PHP, Postfix (Mail Transfer Agent, MTA), iptables, BIND Nameserver (bind, DNS Server), Webalizer (Web-Analytics-Software), Kerberos, OpenLDAP (LDAP), free RADIUS (RADIUS, Remote Authentication Dial-In User Service), Oracle Database (Oracle Database Server, Oracle RDBMS)

Backup concept SPK

Creating and implementing a backup concept for the Prussian Cultural Heritage Foundation

We developed a backup strategy for the Prussian Cultural Heritage Foundation, ensuring quick recovery of the Unix and Linux server systems and various data storage devices and databases after system failures. Servers at two locations, as well as their configurations and system states, are backed up. Targeted recovery of data stocks is supported, as well as disaster recovery.

Solution Architect
June 2004 - June 2006
 Planning and implementation of the backup concept. Planning and implementation of the disaster recovery strategy.
ts
Debian GNU/Linux (Debian), SEP sesam

Reconnecting BeLa

Implementation of «Spandau district office of Berlin»'s new connection to the Berlin state network

Role Solution Architect, Administrator

Period	January 2003 - July 2003
Activities performed	 Multi-level firewall system based on Linux and BSD Intrusion Detection System [IDS] Intrusion Prevention System [IPS] Mail relay server including anti-virus software DNS server and web server HTTP and FTP proxy server Email server (IMAP, POP3) System-wide protection through various security tools Hardened administration workstation

Ordering system ZIT-BB

Developed an electronic ordering system for the State Office for Data Processing and IT Service Tasks (LDS), now Brandenburg IT Service Provider (ZIT-BB).

The new procurement procedure makes an essential contribution to the modernisation of the Brandenburg administration. All authorities have access to this flexible and valuable instrument to meet their IT needs.

InSecMa implemented the planning and creation of a web-based application through which the various departments of the administrations can place orders via the intranet.

Role	Project Manager
Period	January 2002 - October 2002
Activities performed	- Planning and development of the ordering system
Technologies / Produc	ets
	Microsoft Visual FoxPro (VFP), West Wind Framework, HTML (HTML), CSS, JavaScript (ECMAScript, ES)

Printium AG

Printium AG was a company specialised in trading and processing print orders via the internet. In my role as head of the frontend development department, I was primarily responsible for the coordination of the developers and architectural issues.

Role	Head of Frontend Development
Period	January 2000 - December 2002
Activities performed	 Team coordination Architecture and co-development of a browser independent JavaScript library Architecture and co-development of frontend CMS Architecture and co-development of frontend e-procurement and print processing
Technologies / Produc	ets

Java Platform, Enterprise Edition (JEE), Microsoft Visual FoxPro (VFP), West Wind Framework, HTML (HTML), CSS, JavaScript (ECMAScript, ES)	mologies / Froducts	reciliologies / Pi

Joker Software

Joker Software was a Hamburg-based advertising company specialising in digital media.

Role	Software Developer & Linux Administrator
Period	January 1998 - December 1999
Activities performed	 Interactive website "Simon the Sorcerer" for Hasbro Interactive using Flash and PHP Online annual business report on the Internet for Lufthansa Technik Various interactive websites in cooperation with Heye & Partner Salesforce, Hamburg
Technologies / Produc	ets
	Adobe Flash, PHP, Microsoft Visual FoxPro (VFP), HTML (HTML), JavaScript (ECMAScript, ES), CSS, JavaScript (ECMAScript, ES), Debian GNU/Linux (Debian)

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