

Munich, 18. March 2023

## Profile of Mr. Markus Hopf Dipl.-Ing. (FH)

**Picture:**



**Overview:**

- Dipl.-Ing. Computer Engineering (FH)
- Certified Professional Scrum Master PSM
- Certified Spring Professional
- Sun Certified Java Programmer
- Sun Enterprise Trainer
- Sun Certified Enterprise Architect
- OMG Certified UML Professional
- IBM Certified XML Professional

**Skills:**

- Senior Full Stack Developer
- Cloud Microservice architecture
- Single Page Applications (SPA)
- Java, JavaScript, Typescript, Groovy, Kotlin, Scala, Go, Python
- Angular, ReactJs, Wicket
- Spring Boot, Hibernate
- NodeJs, npm
- Kubernetes, Docker
- REST API Webservices
- Coordination of Projects

**Availability:**

In 100% availability projects i can immediately

**Location:**

**Munich** or Remote.

**Conditions:**

**xxx €** per hour.

**Experience:** about 30 years

**Birthday:** 13.02.68

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## **Past projects:**

### **Online Banking - Customer Focus**

Branche: Bank

Referenz: Co. Development in München

from	02/2022	- 03/2023	with	14 months
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- Senior Full Stack Developer
- Service Cut Design
- Conception, Consulting and Maintain
- Implementation in all Layers
- Architecture Diagrams with ADOIT and ArchiMate
- Java Spring Boot Microservices
- Angular Single Page Application (SPA)
- 10 Microservices for Front- and Backend
- TypeScript, Java, JavaScript, Groovy
- RESTful Microservice Architecture
- REST API Versioning
- RedHat Open Shift Cloud Environment
- Docker Container into Kubernetes Cloud Environment
- Jenkins CI/CD-Pipelines
- Infrastruktur as Code (IaC)
- JSON Web Token (JWT), Bearer- Authorization-Header
- Kubernetes Commands and Configuration
- Quality Tasks with Sonar and Linting
- Multi Maven Projects
- Nexus Artifact Repository
- JSON Data Communication
- Alerting, Health Checks
- Postman, Swagger, OpenAPI
- Redis In Memory Cache

- Host Connection and COBOL Copybook Integration
- Testautomation, Performanceanalysis, Resilience
- Cypress and Karma Tests
- Sleuth, Zipkin, Opentracing, Dynatrace
- Grafana and Dynatrace Monitoring
- Spring Boot, Spring Data, Spring Cloud OpenFeign
- Release and Feature Toggles
- Spring Expression Language
- NodeJs JavaScript Backend Development
- JavaScript NodeJs Tests with Mocha and Chai
- NGINX Configuration
- Soap Communication Protocol
- Kubernetes Secrets Configuration
- Semantic Versioning
- DevOps with CI/CD Jenkins Pipelines
- Unix Shell Scripts with bash
- Web Performance Analysis Tools
- Data Exchange with WSDL and SOAP
- JMeter Heavyweight Tests
- Development Parts for Online Banking Platform
- Browser and Mobil based Banking as Single Page Application (SPA)
- Creation of Concepts
- Reviews of Sourcecode
- Support of Developers
- Coordination Dev and DevOps Tasks
- Remote Communication over MS-Teams
- Agile Development in Scrum Team and SAFe
- Grooming, Planning, Retrospective, GIP
- Communication in English and German

Realized with:	Operatingsystems	Red Hat Open Shift, Windows, Linux
	Datenbases	H2, Oracle
	Developmenttools	Eclipse, STS, IntelliJ, Visual Studio Code
	Tools	ADOIT, ArchiMate, LeanIX, Mapstruct, Hazlecast, Java 17, JUnit 5, Jupiter, Lighthouse, web.dev, requestmap.webperf.tools, webpack-bundle-analyzer, WebP, Angular 15, Postman, newman, Swagger, Git, Bitbucket, Jenkins, OTC, RedHat Openshift, AWS, Kubernetes, NGINX, Ingress, JMeter, Kafka, Teams, TypeScript, Groovy, JavaScript, Jasmine, Cypress, Mocha, Chai, Karma, Gherkin, cucumber, mural, xrepository, Sleuth, Zipkin, Opentracing, Dynatrace, Spring Boot, Spring Data, Docker, JPA, Hibernate Envers, LogBack, Log4j2, JWT, Maven, Nexus, Sonar, Lint, Hystrix, H2, Oracle, MsSQL, PostGre, Liquibase, NodeJs, npm, yarn, Checkstyle, curl, JIRA, OWASP, Kubectrl, yaml, Notepad++, GraphQL, SASS/SCSS, SmartBear SoapUi, Citrix,

SourceTree, SmartGit, Lombok,  
@angular/material, SQLDeveloper, Nx, ngx/store,  
@ngrx/component-store,, IBM  
RecordClassGenerator, Redis, Grafana,  
Prometheus, Istio, kibana, Confluence, JIRA,  
OpenAPI, ReadyAPI, planitpoker, electron,  
conceptboard.com, miro, wiremock, lucidchart,  
arc42, Sketch MeaXure

## Shared projects for judiciary - GeFa

Branche: Public Sector

Referenz: Co. .msg in München/Ismaning  
Contact person Mr. Shinja Strasser, Mr. Helmut Lämmermeier  
<http://www.msg.de>  
<http://www.gefa-justiz.de>

from	08/2021	- 02/2022	with	7 months
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- Technical Architect
- Architecture Responsibility and Service Cut
- Domain based Microservices
- Conception of Cross cutting themes
- BSI Security-Requirements
- Analysis of None-Functional-Requirements
- Conception, Maintain and Consulting
- Creation of Architecture Concepts
- Greenfield Project
- Communication with Senior Full stack Devs
- Angular Single Page Application (SPA)
- Browser based Court-WebApp
- Approx. 30 Microservices for Front- and Backend
- TypeScript, Java, JavaScript, Groovy
- RESTful Microservice Architecture
- REST API Versioning
- Framework for Standardization of Microservices
- Open Telekom Cloud Environment OTC
- Docker Container into Kubernetes Cloud Environment
- Jenkins CI/CD-Pipelines
- JSON Web Token (JWT), Bearer- Authorization-Header
- Kubernetes Commands and Configuration
- Relational SQL Scripts
- Database Connections and Liquibase Migrations Scripts
- Hystrix latency for Fault Tolerance
- CircuitBreaker, FeignClients, SoapClients

- Quality Tasks with Sonar and Linting
- Multi Maven Projects
- Nexus Artifact Repository
- JSON Data Communication
- Alerting, Health Checks
- Postman, Swagger, OpenAPI
- Testautomation, Performanceanalysis, Resilience
- Cypress and Karma Tests
- Sleuth, Zipkin, Opentracing, Dynatrace
- Monitoring, Security
- Spring Boot, Spring Data, Spring Cloud OpenFeign
- Release and Feature Toggles with trunk-based-development
- Spring Expression Language
- NodeJs JavaScript Backend Development
- JavaScript NodeJs Tests with Mocha and Chai
- Ingress Service Discovery
- NGINX Configuration
- Soap Communication Protocol
- Kubernetes Secrets Configuration
- Semantic Versioning
- Angular State Management with ngxs/store, Actions and Reducer
- Angular Material Design UI Components
- DevOps with CI/CD Jenkins Pipelines
- Shell Scripts
- Web Performance Analysis Tools
- Data Exchange with WSDL and SOAP
- JMeter Heavyweight Tests
- Meetings with business domain experts
- Development of a Court-Software for the German Justice
- Browser based Court-App as Single Page Application (SPA)
- Ca. 100 involved Persons in Development
- Reviews of Sourcecode
- Coordination of Devs and DevOps Tasks
- Agile Development in a Scrum Team and SAFe
- Grooming, Planning, Retrospective
- Communication in English and German

Realized with:	Operatingsystems	Open Telekom Cloud (OTC) , Windows, Linux
	Datenbases	H2, Oracle, MsSQL, PostGre
	Developmenttools	Eclipse, STS, IntelliJ, Visual Studio Code
	Tools	ArchiMate, LeanIX, Mapstruct, Hazlecast, Java 11, Lighthouse, web.dev, requestmap.webperf.tools, webpack-bundle-analyzer, WebP, Angular 13, Postman, newman, Swagger, OpenAPI, Git, Bitbucket, Jenkins, OTC, Kubernetes, NGINX, Ingress, JMeter, Teams, WebEx, Angular, TypeScript, Groovy, Java, JavaScript, Jasmine, Cypress, Mocha, Chai, Karma, Gherkin, cucumber, mural, xrepository, XJustiz, Sleuth, Zipkin,

Opentracing, Dynatrace, Spring Boot, Spring Data, Docker, JPA, Hibernate Envers, LogBack, Log4j2, JWT, Maven, Nexus, Sonar, Lint, Hystrix, H2, Oracle, MsSQL, PostGre, Liquibase, NodeJs, npm, yarn, Checkstyle, curl, JIRA, OWASP, Kubectl, yaml, Notepad++, GraphQL, SASS/SCSS, SmartBear SoapUi, Citrix, SourceTree, SmartGit, Lombok, @angular/material, SQLDeveloper, Nx, ngx/store, Prometheus, Eclipse, STS, IntelliJ, kibana, Confluence, JIRA, coyo

## Housing-saving Calculator and Taxes

Branche: Finance

Referenz: Co. Fiducia GAD in München/Aschheim  
Contact person Mr. Matthias Leukert, Mr Erich Burggraf, Mr. Martin Hahn  
<http://www.fiduciagad.de>

from	12/2019	- 08/2021	with	20 months
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- Senior Fullstack Developer
- Angular Single Page Application - SPA
- 12 Microservices for Front- and Backend
- TypeScript, Java, JavaScript, Groovy
- RESTful Microservice Architectur
- REST API Versioning
- Framework for Standardization of Microservices
- RedHat Openshift Cloud Environment
- Docker Container in Azure Cloud Environment
- Jenkins CI/CD-Pipelines
- JSON Web Token (JWT), Bearer- Authorization-Header
- Kubernetes Commands and Configuration
- Relationale SQL Scripts
- Database connections and Flyway Migrations Scripts
- Hystrix latency for Fault Tolerance
- CircuitBreaker, FeignClients, SoapClients
- Quality with Sonar and Linting
- Multi Maven Projects, Gradle Build Scripts
- Nexus Artifact Repository
- AMQP Messaging - Advanced Message Queuing Protocol
- JSON Data Communication
- Alerting, Health Checks
- Postman, Swagger, OpenAPI
- Camunda Process-Engine
- Camunda BPMN-Workflows and DMN-Decisions

- Testautomation, Performanceanalyze, Resilienz
- Selenium, Fitnesse, Protractor and Karma Tests
- Zipkin, Opentracing, Dynatrace
- Monitoring, Security
- Spring Boot, Spring Data, Spring Cloud OpenFeign
- Release and Feature Toggles with trunk-based-development
- Spring Expression Language
- NodeJs JavaScript Backend Development
- JavaScript NodeJs Tests with Mocha and Chai
- Consul Service Discovery
- Soap Kommunikations Protokoll
- Openshift Secrets Konfiguration
- Semantic Versioning
- Angular State Management with ngxs/store, Actions and Reducer
- Angular Material Design UI Components
- Migration towards Angular 11
- JQ Json Parser
- DevOps with OpenShift CI/CD Jenkins Pipelines
- Shell Scripts
- Web Performance Analyse Tools
- Data exchange with WSDL and SOAP
- JMeter Robustness Tests
- Developing of a Housing-saving Calculator
- Enhancement of the Bank Desktop - BAP
- All kind of taxes sheets
- REST Interfaces tou BAP, KAPST and agree21
- Meetings with buisness domain experts
- Reviews of Sourcecode
- Dev and DevOps Tasks
- Remote Communication over Skype and Gotomeeting
- Agile Development in a Scrum Team and SAFe
- Grooming, Planning, Retrospective
- Communication in English and German

Realized with:	Operatingsystems	Azure Cloud, Windows, Linux, Ubuntu KDE
	Datenbases	H2, Oracle
	Developmenttools	Mapstruct, Hazlecast, Java 11, miro.com,
	Tools	HashiCorp Consul, Lighthouse, web.dev, requestmap.webperf.tools, webpack-bundle- analyzer, WebP, Angular 11, Postman, newman, Swagger, OpenAPI, Git, Bitbucket, Jenkins, RedHat Openshift, Azure, Camunda, Spin, JMeter, IBM Lotus Notes, Teams, GotoMeeting, Angular, TypeScript, Groovy, Java, JavaScript, Selenium, Jasmine, Protractor, Mocha, Chai, Karma, Fitnesse, Zipkin, Opentracing, Dynatrace, Spring Boot, Spring Data, Kubernetes, Docker, AMQP Messaging, JPA, Hibernate, Log4j2, JWT, Maven, Gradle, Nexus, Sonar, Lint, Hystrix, H2, Oracle,

SQL, Flyway, NodeJs, npm, yarn, Checkstyle, curl, JIRA, OWASP, KubectI, yaml, Notepad++, GraphQL, SASS/SCSS, SmartBear SoapUi, Citrix, Telegram, SourceTree, SmartGit, Lombok, @angular/material, SQLDeveloper, ngx/store, allure, IKESA, VR-NetKey, aqua, Grafana, Prometheus, funretro.io, IntelliJ, consul.io, gson, kibana

## Digital Marketplace - G2M

Branche: Telecommunication

Referenz: Co. Rohde & Schwarz in München  
Contact person Mr. Patrick Bauriedl, Mr. Ivan Kostov, Mr. Christoph Maurer

<http://www.rohde-schwarz.com>

from	09/2019	-	12/2019	with	4 months
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- Full Stack Developer
- Development of Digital Marketplace Applications
- WebShop Development with Angular and NodeJs
- Backend and Frontend with TypeScript and JavaScript
- Packet Manager npm and yarn
- Azure Cloud based PaaS
- Docker based MicroServices
- Docker Compose multi-container solutions
- Harbor Registry for Docker images
- Git Hooks with Husky
- RedHat OpenShift Pods
- OKD Jenkins Pipelines and Clusters
- Administration of OpenShift Clusters
- OC and KubectI CLI commands
- Yaml Templates as OpenShift Service Definition
- Azure Service Bus for asynchrone Messaging
- REST API Routes with Versioning
- OpenAPI, Swagger Documentation
- Authentification over SAML Service
- NoSQL Datenbank MongoDB
- Configuration as Code with Jenkinsfiles
- CI/CD Pipeline
- Distributed Tracing, OpenTracing
- OWASP and Lizenze checks
- CSS Styles and Html Templates
- Jasmine, Karma and Robot Tests



- Test with Robot Framework and RIDE Suites
- Python Scripte for Test Automation
- Sonar and Checkstyle Coverage
- Dev and DevOps Duties
- Development of a generic Webshop
- Shop Extensibility for cloud products
- Go-2-Market Applications - G2M
- Identity and Access Management - IAM
- Remote Communication over GotoMeeting
- Agile, remote Scrum Team
- Grooming, Planning, Retrospective
- Project language English

Realized with:	Operatingsystems	Azure Cloud, Windows, Linux, Ubuntu KDE
	Datenbases	MongoDB, CosmosDB, MySQL
	Developmenttools	RedHat OpenShift, Azure, MongoDB, Docker,
	Tools	Visual Studio Code, Notepad++, Citrix, Chrome DevTools, TypeScript, Angular, Jasmine, Karma, Robot Tests, ESLint, NodeJs, npm, yarn, PMD, Checkstyle, Sonar, JIRA, Docker, Proxyfier, Postman, Hyper-V, VMware, Skype, git, bash, zipkin, jaeger, depcheck, module-structure, retire.js, OWASP, Harbor, CosmosDB, Husky, Openshift, OKD, OC, Kubernetes, Kubectl, Keycloak, MockServer, Ubuntu KDE, Kate, Dolphin, robotframework, RIDE, Python, pip, MarkdownViewer++, Markdown Extension, json, yaml, JWT, APISimulator, draw.io, Studio 3T, OpenAPI, Swagger

## Siemens Corporate Entitlement Service - CES

Branche: Security

Referenz: Co. Siemens in München

Contact person Mr. Siegfried Eichner, Mr. Binh Le Nguyen, Mr. Erik Bergjohann, Mrs. Elena Thiel

<http://www.siemens.com>

from	06/2018	-	09/2019_	with	16 months
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- Full Stack Developer
- Implementation of Spring Microservices
- Spring Boot and Spring Batch Applications

- Spring Core, Security
- Spring Eureka Multi Instanz Architecture
- Spring Cloud Netflix, Eureka, MVC, Thymeleaf
- RESTful Spring Controller
- Angular Frontends development
- Npm and NodeJs
- Java and JavaScript
- Reactive Programming with Typescript
- Json and yaml
- Jenkins Release Pipeline with Jenkinsfile
- Groovy Scripts
- Java 8 Functional programming
- JWT (JSON Web Token) for Microservices
- Maven Multi Module Projects
- DevOps Tasks
- Cloud Foundry
- Artifactory Repository
- Git and svn Repositories
- Svn to Git Migration
- Introduction of Git-flow Workflow with GitLab
- In-memory data grid performance optimization
- XSS Cross Site Filter for Tomcat
- PKI Infrastructure
- Public Key, private Key communication
- One Time Password - OTP
- OpenID, Single Sign On - SSO
- Security Assertion Markup Language - SAML
- DirX and LDAP lookup
- Windows Active Directory Configuration
- Apache Load balancing
- Tomcat Web Applications
- Shell Script programming
- Sonar for static code analyse
- OWASP Security Findings
- HTML5, CSS
- Spikes for Kotlin and Scala
- Kundenaccounts with Single Sign On
- Authentication / Authorisation
- Segregation Of Duties – SoD
- Agile Story Planung with JIRA
- Smartcard PKI Login
- Secure Coding
- Protection Requirements Assessment PRA
- User Management
- 2-Factor Authentication
- Process definitions
- Coordination and Bug Tracking
- Agile Development with Scrum and Kanban

- Grooming, Planning, Retrospektive
- Remote communication over Circuit
- Project language Englisch
- Partly remote team

Realized with:	Operatingsystems	Windows, Linux
	Database	Oracle, H2, mySQL
	Developmenttools	Visual Studio Code, Eclipse, STS, Java, Kotlin,
	Tools	Scala, Mockito, RxServer, Netty, Lombok, Cucumber, GitLab, YAML, Portecle, Ansible, JWT, Retire.JS, Git, svn, bash, Tomcat, Jetty, Entrust, Syncplicity, Splunk, Circuit, Subclipse, LDAP, DirX, X.509, WinSCP, puTTY, puTTYGen, Groovy, Squirrel, eclEmma, cron jobs, Remedy, replT, Lucidchart, Postman, ssh, ssl, Oracle, H2, Kanban, DevOps, Mailversand, Swagger, Netflix, Hystrix, Ribbon, Cobertura Code Coverage Report, cacerts, keytool, UML, ant, pageant, PMD, Checkstyle, Findbugs, Spotbugs, Sonar, Fiddler, SiMPL, Yo, npm, node, OWASP, jSoup, JIRA, conceptboard

## Financeportal for public financing - PIF

Branch: Bank, Fintech

References Co. Dt. Pfandbriefbank/Capveriant in Munich/Unterschleißheim  
 Contact person Mr. Benedikt Girz, Mr. Sergiy Barlabanov  
<http://www.pfandbriefbank.com>  
<https://www.capveriant.com>

from	11/2017	-	05/2018	with	7 months
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- Full Stack Development
- Java Microservices Architectur
- Spring Boot, Spring Data
- Java, JavaScript
- Single Page Application
- Angular Web-development
- RESTful Interface
- Frontend Tests with Protractor
- JUnit Tests with Karma
- Pacet Manager npm
- Node.js non-blocking Runtime Engine
- Distributed Source control with Git
- Azure Cloud solutions
- Automated ARM Templates

- Azure Storage Account
- Azure KeyVault Certificates
- Powershell Azure Scripts
- Setup of VSTS Build Pipeline
- Automated Deployments with VSTS
- VSTS for Tickets/Tacking
- Multilanguage Application
- Automatic E-Mail sending
- SSL/HTTPS Certificates
- YAML and JSON Dataformats
- JSON Web Token JWT
- Security Access Token
- PaaS, SaaS as a Service
- Kubernetes Container based Deployment
- Docker for Container virtualization
- MsSQL Docker Image creation
- Transact-SQL (T-SQL) Scripts
- Daten Migration with Flyway
- Maven Build Management
- DevOps tasks
- Bash shell and Unix Scripts
- Spike for Scala
- Finanzportal for public financing
- Complete new Development with a remote team
- Agile Development with Scrum and Kanban
- Grooming, Planning, Retrospective
- Remote communication over TeamViewer, Skype, Slack
- Project Speech Englisch
- Offshore Team

Realized with:	Operatingsystems	Windows, Linux
	Database	Microsoft SQL Server, H2, HSQL, mySQL
	Developmenttools	Azure, Node.js, bash, npm, Eclipse, IntelliJ IDEA,
	Tools	Visual Studio Code, Angular 5, JavaScript, ES6, EsLint, Java8, Scala, Spring Core, Spring Data, JPA, Hibernate, Mockito, REST, Json, Maven, Notepad++, CSS, sublime, SMTP, logback Logger, Putty, ssh, scp, Skype, Slack, Teams, Ubuntu VM setup, CSRF, Chocolatey Paketmanager, TCPView, MSSQL Server, ARM Automatic Resource Management, ARM Azure Resource Manager, DMA Data Migration Assistant, SSMS SQL Server Management Studio, SSMA SQL Server Migration Assistant, Team Foundation Server (TFS), Visual Studio Team Services (VSTS), Git, Flyway, MsSQL, MySQL, Office365, zeplin.io, Lucidchart, linoit, Typo3 Script Bitnami, PrimeNG Rich UI Web Components, Postman, cURL, ModelMapper, querydsl, Bitnami

Matomo/Piwik, Apache FreeMarker, Spring  
Quartz, GreenMail, ssh, ssl

## Logistic for yard management - flow

Branch: Logistic

References <http://www.43gis.com>

Co. 43gis in Munich.

Contact person Mr. Torsten Oltmanns, Mr. Clemens Weber

from	03/2017	-	10/2017	with	8 months
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- Microservices Architecture
- ReactJs frontend development
- Spring 4 and Java 8 backend development
- Single Page Applikation implementation
- Workflow implementation for Statemachine
- Redux Datastore connection
- REST communication
- Ajax and Promises Callback communication
- NodeJs and npm development
- Websocket Endpoint Messaging
- ESLint for code quality
- implementation of transactional Spring components
- Persistence with Hibernate
- Data migration
- SCM with Git and Gogs
- Unit and integration tests
- Jenkins Build control
- JBoss, Wildfly Application Server
- gradle and Maven build control
- Certified Scrum Master PSM
- Remote teams, Nearshoring
- JIRA, confluence
- Skype, TeamViewer
- asterisk telefon conferences

Realized with:	Operatingsystems	Windows, Linux
	Database	Oracle
	Developmenttools	NodeJs, npm, ReactJS, JavaScript, Mocha,
	Tools	ES6, JSX, Redux, PhantomJS, Jest, enzyme,
		sinon, Lerna, karma, Lanterna, ESLint, Java 8,
		Spring Core, Spring Data, JPA, Hibernate,
		Mockito, JMX, Git Bash, Gogs (Go Git Service),
		Jenkins, TeamViewer, REST, Json, Postman,
		SQLDeveloper, ORACLE, MSSQLServer,
		iBatis+Liquibase DB Migration, Eclipse Neon,
		JBoss, Wildfly, Gradle, Maven, artifactory, Visual

Studio Code Editor, sublime, Atom, Notepad++, JSP, JQuery, HTML, CSS, OpenLayers, jacoco, Skype, Confluence, JIRA, Jing, Nagios, Bizagi Modeler, Bamboo Paper, XMind Mindmaper, realtimeboard, linoit, Scrum

## Vehicle calculator for classic cars - ANDIE

Branch: Insurance

References <http://www.aioinissaydowa.eu>

Co. AIOI in Munich/Ismaning.

Contact person Mr. Martin Brauner.

from	10/2016	-	03/2017	with	6 months
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- Angular frontend development
- Spring backend development
- Development with Java 8 language features
- REST call interface with Promises and Observables
- Asynchron client/server communication with callbacks
- Cross-Origin Resource Sharing (CORS) implementation with Spring
- Protection against Cross Side Scripting (CSRF) with Spring
- Grunt and Maven as Build Tool
- Project modularization in Node.js, npm submodule
- JSON and YAML file formats
- Usage of HTML5 and CSS
- Protractor E2E Tests
- Jasmine Test Framework
- Selenium Web Driver Tests with PhantomJS
- Oracle VirtualBox for Vagrant virtualization
- Migration with Postgre datenbase scripts
- Complete new development in small team
- Tariff calculation of car insurances for end customers
- Customer registration with Double-Opt-in
- Automated E-Mail delivery
- Confluence Jira for communication
- Process model with Scrum Team
- Communication with Test Team

Realized with:	Operatingsystems	Windows, Linux
	Database	PostgreSQL
	Developmenttools	Flyway, Mockito, EasyMock, TSLint, Balsamiq,
	Tools	Hibernate, Node.js, npm, Firebug, VS Code, CSS, HTML5, SonarLint, Spring Data, Spring Core, Spring Boot, GitHub, Angular2, Apache Commons, Docker, Vagrant, Jing, JIRA, Confluence, Json, YAML, SoapUI, Log4j, git,

mvn, SourceTree Git Browser, Nexus, Jenkins,  
REST, JPA, DBeaver, PostgreSQL, Eclipse,  
STS, Java 8, putty, WinSCP, Notepad++,  
subethasmtp

## Telephone Number Porting with Java EE

Branch: Telecommunication

References <http://www.consol.de>

Co. ConSol in Munich.

Contact person Mr. Thomas Michal, Mr Andreas Berger.

from	04/2016	-	10/2016	with	7 months
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- EJB backend development
- Webservice REST Client/Server communication
- Angular2 web development with TypeScript
- TypeScript as abstraktion for JavaScript
- Migration von EJB 2.1 nach EJB 3.0
- Spring data for JPA repository access
- TestNG components tests
- Oracle WebLogic Application Server
- Oracle PL/SQL Stored Procedures
- RMI - Remote Method Invocation
- Workflow engine
- MSISDN migration over staging tables
- JavaScript development
- Node.js and npm for packages and modules management
- JPA entity development with EclipseLink
- Java 8 language features
- Jenkins continues integration job administration
- Citrus integrations tests
- Maven multi project profile
- Data migration of mass data
- x.400 gateway and 2MRDB porting
- CORBA Tuxedo connector
- CORBA IDL
- Scrum Master tasks
- Telephone number porting
- Import and export of telephone numbers for prepaid- and postpaid brands
- Starter Pack SIM migration
- Git branching strategies and pull requests
- Atlassian tool suite for communication
- Confluence Jira for processes
- Bugtracking over ClearQuest
- Load-tests

- Realization within a scrum team
- Coordination with domain experts
- Communication with test-team

Realized with: Operatingsystems	Windows, Linux
Database	Oracle 11
Developmenttools	Eclipse, IntelliJ
Tools	Flyway, MyBatis Migration, Mockito, EasyMock, Hibernate, maven-replacer-plugin, Node.js, npm, Broccoli Plugin, TypeScript Eclipse Plugin, Firebug, VS Code, SonarLint, TestNG, Spring Data, Atlassian Suite, Bitbucket, Confluence, JIRA, HipChat, ClearQuest, ClearQuest, GitHub, AngularJS, Apache Commons, Docker, Jing, JIRA, Confluence, Json, Log4j, Citrus, git, mvn, ant, Nexus, Jenkins, Oracle WebLogic, SoapUI, REST, JPA, SQLDeveloper, ORACLE, Eclipse, Java 8, putty, WinSCP, Notepad++

## Multiple Assembly Planning & Process System - MAPP

Branch: Automotive

References <http://www.gigatronik.de>

Co. Gigatronik in Munich.

Contact person Mr. Stefan Hanel, Mr. Michael Voitenleitner.

from	09/2015 - 03/2016	with	7 months
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- EJB development
- Webservice REST Client/Server communication
- JPA entity development with EclipseLink
- JPA criteria API
- Java 8 language features like Lambdas
- Aspect oriented interceptors
- DB modeling
- Jenkins continues integration job administration
- JUnit Mockito tests and integrationtests
- Maven multi project profile
- Usage of JRebel
- JSON data exchange format
- Data migration
- JavaFx client development
- JavaFx design with scene builder
- Glassfish configuration
- LDAP connection



- SONAR metrics
- FitNesse tests
- Generic realization of MAPP for car production and planning of BMW vehicles
- Part project coordination
- Coordination with domain experts
- Communication with Test-Team
- Organization development meetings
- 'Clean Code' principles
- Implementation and technical realization
- Senior developer
- Scrum Master tasks

Realized with: Operatingsystems	Windows, Linux
Database	Oracle 11
Developmenttools	SezPoz, Apache Commons, Jing, Jersey, Json,
Tools	Log4j, EclipseLink, MQ, JRebel, mockito, SVN, mvn, FitNesse, Nexus, Jenkins, Sonar, Jubula, Glassfish, REST, JPA, SQLDeveloper, ORACLE, Eclipse, JavaFx, JAutodoc, LDAP, ScenicView, SceneBuilder, Java 8

## Online portal for ambulant, medical services - OPAL Web-Application

Branch: Health Insurance

References <http://www.kvb.de>  
Co. KVB in Munich. Contact person Mr. Matthias Geiss.

from	09/2012 - 07/2015	with	35 months
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- Development of the online portal OPAL
- Extension of existing service interfaces
- Spring Core for Dependency Injection
- Spring Web Flow for page navigation
- Spring Restful Webservice implementation
- Spring authentication and authorization
- Browser plausibility with JavaScript
- Buildmanagement with Gradle Buildsript in Groovy
- Continues Delivery with FeatureToggles
- Dynamic configuration of features with Framework 'Togglz'
- Webservice requests with SoapUI
- Agile DB migration with flywayDB
- Programming with Java 7
- Creation of SQL Scripts
- Serverside validation with Rhino Script Engine
- XSLT transformation of data to Sciphox and EHD format
- Further development of the JSP pages
- WebTests with JUnit and Selenium Browser Plugin

- Configuration of Jenkins Jobs for CI, NB and INT environment
- Timeline versioning of business change requests
- Usage of Jenkins plugins
- Configuration of Jenkins Jobs for CI, NB and INT environment
- Usage of Gradle and Maven as build tools
- Release management with maven release plugin
- Assembling and deployment with maven
- Maintenance of data in integration
- Development of ORACLE SQL statements for ABN and Production
- Defining of SQL scripts for DB handover process
- Maintenance of data with PL/SQL scripts
- File exchange formats .json and .yaml
- Asynchron processing over ONDES and KV-Connect interface
- Test Driven Development - TDD
- WebTests with JUnit and Selenium browser plugin
- Load Tests of Webservices with SoapUI
- Threading and Web Load-Tests with LoadUIWeb
- Remote access via Secure Shell (SSH) and odin
- Documentation of medical reports in the online portal (OPAL)
- Submission of electronic documentation to the KVB
- Export of data to Sciphox xml format
- Support of the following medical documentations:
- Allergologie, Balneophototherapie, Belastungs-EKG, Darmkrebsberatung, eDMP, DMP-Brustkrebs, Hautkrebsscreening, Koloskopie, Multiple Sklerose, Risikoprävention bei Kinderwunsch, Schmerztherapie, Sonografie Schwangerschaftsvorsorge, Tonsillotomie, Gastroskopie, Onkologie
- New development of medical documentations like Hörgeräte, Molekulargenetik and Sozialpsychiatrie
- Extension of the online documentation OPAL for medicians
- Scrum with Daily Standup and Retrospective

Realized with: Operatingsystems	Windows 7, Linux
Database	Oracle 11g
Developmenttools	J2SE 7, STS - Spring Tool Suite, Kepler Eclipse
Tools	Java EE IDE for Web Developers, Tomcat 7, Jenkins Flow Plugins, Flyway, WinSCP, putty, Nexus, SONAR, ONDES, KV-Connect, Linux, PdfBox, Lombok, Gradle, Groovy, Spring MVC, SoapUI, Feature Toggly, Secure Shell (SSH), TLS, SSL, Burp Proxy, FoxyProxy, Hamcrest, Confluence, odin, DbSetup, flywayDB, maven release plugin, LoadUIWeb, Java 7, JavaMelody, xml-unit, JDedend, Spring Core, Spring Web Flow, Oracle SQL Developer, EJB 3.1, JPA, CriteriaAPI, SVN, Subclipse, Subversive, Tortoise, Firebug Firefox Addon, Selenium Plugin, Live HTTP headers Firefox Addon, EclEmma Eclipse Addon, CheckStyle, Maven, Tomcat, JUnit, XSLT, HttpUnit, DbUnit,

Jenkins, joda-time.jar, jQuery, JavaScript Rhino Engine, JavaScript

## Web Wiki/Community Angeln.de (Fishing website)

Branch: Softwarehouse, Startup Company, Printmedia

References <http://www.angeln.de>

References <http://www.woont.com>

Co. Woont in Munich. Contact person Mr. Dirk Wermuth.

from	10/2011	-	08/2012	with	11 months
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- Complete relaunch in a small team
- Development of a Social-, Community-, Shop- Web-Application
- Implementation of various Web-Applications around [www.angeln.de](http://www.angeln.de)
- Web-Frontend, Shop, Editor and Admin realized as Web-Apps
- Integration of social networking pages, linkage to other Web-Apps of the domain
- Data import with SQL scripts and java importer
- Development with Glassfish, Embedded Glassfish and Embedded Jetty
- Creation of generic, reusable Ajax Wicket components
- Extensive development of Ajax components for Web 2.0
- Searching and sorting of datatables with Ajax
- Usage of tables with paging navigator and ListView
- Programming of image galleries with DataViews
- Dynamic menus with changing contexts
- Working with Wicket IModel variations like PropertyModel and CompoundPropertyModel
- Layers Design Pattern - Design and call of interfaces to the backend
- Implementation of SEO (Search Engine Optimization) techniques
- Localized URL generation in various languages
- Persistence layer with EJB, JPA and Criteria API
- Geolocating of addresses with EJB Timer Bean
- Google Maps integration with JavaScript Google API
- Bean validation over various layers using JSR 303
- Maintenance of the persistence service
- Schema maintenance and enhancements for the database
- Implementation of image and logo uploads
- Cropping and converting of images with ImageMagick API
- Image converting using im4java API for various web formats
- Usage of Maven Multi Modules with personalized profiles
- CSS adjustments and CSS generation using less compiler
- Bug tracking system OTRS
- Continuous integration and nightly build using Jenkins
- Spring Dependency Injection Integration DI
- CSS and JavaScript development and debugging with Firebug plugin for Firefox
- Usage of Eclemma coverage eclipse plugin

- Generic programming using java generics
- Consequent usage of JUnit regressions tests, standard technologies and standard tools for development

Realized with: Operatingsystems	Windows 7, Linux, Ubuntu
Database	PostgreSQL 9
Developmenttools	J2SE 6, Eclipse 3.6.2 Helios, Glassfish
Tools	Embedded, Glassfish 3.1.1, Embedded Jetty EJB 3.1, JPA, CriteriaAPI, Apache Wicket 1.5, Eclipse, SVN, Subclipse, Subversive, Firebug Firefox Addon, Live HTTP headers Firefox Addon, PrefBar Firefox Addon, AnyEdit Eclipse Addon, EclipseMaven Eclipse Addon, Maven, glassfish, Tomcat, Jetty, JUnit, Selenium, Jenkins, PMD, FindBugs, joda-time.jar, guava.jar, Skype, SQuireL SQL, PostgreSQL DB, gforge, tickspot, MindMap Freeplane, im4java, ImageMagick, GraphicsMagick, jQuery, less, JCrop, OTRS, Facebook, Twitter, YouTube, Google Maps API, fancyBox

## JEE Tariff Calculator and Webservice

Branch: insurance

References: <http://www.lv1871.de>

Co. LV1871 in Munich. Contact person Mr. Alexander Gold.

from	07/2009 - 07/2011	with	25 months
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- Relaunch/Development of the existing Tariff Calculator software with Apache Wicket Framework
- Development/Maintenance of the existing Tariff Calculator software with Apache Struts
- Components with usage of Wicket HTML markup inheritance development
- Development of advanced Gui functionality beyond the Wicket Extensions (like "close button" on tabulators)
- Wicket Ajax component development
- Development of company web based components
- CSS and JavaScript development and diagnosis with Firebug Plugin for Firefox
- Generating of path notation with 'bindgen' utility and @Bindable annotation for type save Wicket ID's
- Extension handler for XStream and Castor marshallers for object to XML generators
- Implementation of the BiPRO insurance webservice standard
- Schema validation and WSDL generation
- Design of complex element inheritance in XSD schemas
- Usage of JAX-WS webservice framework
- JAXB XML marshalling resp. XML serialization to java
- Generic programming because of java generics usage
- Loadtests with SoapUI against the webservice implementation

- Design of the technical and logical validation of the webservice
- Development of various XML namespaces
- Implementation of various insurance tariffs
- Extensions on the existing tariff software
- Maintenance of the productive platform
- PDF generation with Apache FOP
- XSL transformation in several steps up till to printable XSL-FO documents
- Strict validation of XSL templates and XSL-FO elements
- Integration of the printable XSL-FO documents into the webapplication
- Refactoring of the exception handling
- Maintenance of the intranet and Wiki
- Consistent Usage of JUnit regression tests, standard technologies and standard tools for development
- Spring integration
- Usage of Core Spring for better Testing
- Usage of various JEE / J2EE Pattern like SessionFacade, ServiceLayer, Transfer Object Assembler, DTO, DAO, ...
- COBOL \*.cpy integration, calls to tariff calculator cores
- Automated XML printjobs
- Implementation of 'lucene' search engine functionality
- Usage of EcEmma Coverage Eclipse Plugin

Realized with: Operatingsystems	Windows 7, Windows Vista, Windows XP, Linux, AIX
Database	HDB, DB2
Developmenttools	J2SE 6.0, Eclipse 3.x, Jetty6, Tomcat6, Live
Tools	HTTP headers, Firebug, Citrix, STS, Subversion SVN, CVS, WinSCP, PuTTY, Extreme Planner, Firefox, Opera, Safari, Windows 7, Windows Vista, Windows XP, commons beanutils, xalan Parser, xerces Parser, JUnit, httpUnit, Spring, Bindgen, ant, maven, Jenkins/Hudson Nightly Build Tool, Emma Test Coverage Frameworks, JAX-WS Webservice Framework, SoapUI, UML Enterprise Architect, XMLSyp, Notepad++, Bouncy Castle Cryptography Library, JDom, xstream serialize XML, Apache Struts, Apache Wicket, Apache log4j, Apache FOP, BiPRO, JAXB, WSDSL2Java, cygwin

## Smartphone Web and App Development

Branch: Entertainment

References

[http://www.androidzoom.com/android\\_applications/trivial+dice/by\\_matching](http://www.androidzoom.com/android_applications/trivial+dice/by_matching)  
<http://www.m.hopf-it.de>

from	09/2010 - 10/2010	with	1 month
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- Web app Development for Smartphones

- Usage of iui - User Interface (UI) Framework from Google
- Development of the own homepage in mobile format
- Development of a Simple dice which rolls in 2D graphic, if you tap the screen
- Game development: Trivial Dice
- Conception of the layout
- Design of the graphic
- Development of the statemachine
- External event handling
- Consideration of different resolutions
- Testing of various devices with emulator
- JUnitTest suite for the App
- Lite version with reduced feature set
- Pro version with different access rights
- Playing of audio file
- Familiarization with the Anroid SDK and Google iui, JQTouch Framework
- Multi lingual description
- Versioning in Android Market

Realized with: Operatingsystems	Windows 7
Database	-
Developmenttools	J2SE 6.0, Eclipse 3.x, Google iui Framework,
Tools	JQTouch Framework, Android SDK, Eclipse Plugin, JUnit

## JEE Webapplications for Ring Back Tones

Branch: telecom

References <http://www.ect-telecoms.de>

Co. ect-telecoms in Munich. Contact person Mr. Robert Parkes, Mr. Hans Huber, Mr. Ahmed Ferdous.

from	09/2008 - 06/2009	with	10 months
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- Creation of web applications with Tomcat, JSP, Spring and Hibernate
- HTTP Authentication with Basic and Spring XwsSecurity method
- Porting respectively migrating the integration layers from Oracle to HSQL database
- Porting of Oracle schemas and data to HSQL database
- Realization of a standalone reference web client as a presentation application
- Implementation of a Soap Services with JAXB to upload binary content
- Configuration of ant scripts and make them runnable under LINUX and Windows
- Extension of the Soap core component with new features
- Publishing the new features as web service
- Porting the Codehouse XFire web service architecture to Spring WS respectively Apache CXF Framework
- Mobile Communication over USSD Service Codes and XML-RPC.
- MDA UML transformation to XSD
- XSD schema definition for automatic generation of the model and soap classes
- JAXB XML marshalling respectively XML Serialization to Java
- Basic Apache webserver configuration
- Remote installation and deployment onto customer servers
- Creation of Spring, maven and ant configurations

- Error tracking with Jira as bug tracking system
- Initialization and introduction of Apache Continuum as Nightly Build process, JUnit Tests, Nightly Build, SVN Tags and Branches, measure of test coverage, Intranet Wiki.
- Load tests for Soap web services with soapUI
- jUnit regression tests
- Consequent usage of JUnit regression tests, standard technologies and standard tools in the development
- Team communication and documentation completely in English

Realized with: Operatingsystems Windows; Linux  
 Database Oracle, HSQL  
 Developmenttools J2SE 5.0, GIMP PictureEditor, ColorZilla  
 Tools Colorpicker, FireFTP, Notepad++,  
 Cygwin, HSQL, ORACLE10g, Eclipse 3.4,  
 Tomcat5.5, Live HTTP headers, Squirrel  
 DBViewer,  
 SQLDeveloper, SQLPlus, DbVisualizer, VNC, 7-  
 Zip, Tortoise, Subversion SVN, WinSCP, PuTTY,  
 Jira Bugtracking,  
 Clearspace, Thunderbird, Firefox, Ace  
 WINScreen, Windows XP, Linux Ubuntu, Spring,  
 Hibernate, ehcache, OSGi, commons,  
 myfaces, xalan, xerces, JUnit, httpUnit, ant,  
 maven, Codehouse XFire, Apache CXF,  
 XML-RPC, redstone XML-RPC library, GSM  
 Services, EMF (Eclipse Modelling Framework),  
 GMF (Graphical Modelling Framework), SOAP,  
 Spring WebService, jstl, acegi security,  
 JavaScript, JavaScript Debugger Venkman,  
 clover and emma test coverage Frameworks,  
 Apache CXF Webservice framework, soapUI,  
 UML Enterprise Architect, StarUML

## **J2EE accounting system for health insurance (nPROD)**

Branch: health insurance

References <http://www.azh.de>

Co. VSA/azh in Munich. Contact person Mr. Weber, Mr. Herrmann.

from	04/2006	-	08/2008	with	28 months
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- New product development of an automatic accounting system for health- and auxiliary material
- Analysis and design with UML 2.1
- Requirement analysis and review with business and domain experts
- Use Case description with the CASE Tool MagicDraw
- MDA usage for the persistence layer
- Usage of a persistence framework (Marvin) for the modelling of the DB
- Modelling of GUI workflows with the CASE Tool MagicDraw
- Usage of a GUI workflow framework
- SWING masks with GidBagLayout
- Extensive usage of CVS (Tagging, Branching, Merging)
- Rule based approach for frequently changing requirements
- Migration of the project to the Spring application framework

- Migration of the existing data to the new structure using CSV files
- Adaptation of the data structures for the data import
- Data import from ABDA pharmacy position data
- Electronic data exchange (DTA) with health insurance company
- JUnit-Tests for the business logic and the GUI
- Quality ensured with 80% JUnit test coverage and CheckStyle coding conventions
- Maintainance and rollout
- Attendance of the project from beginning to the end (product version 1.0)
- Incrementell approach on database changes with update scripts
- Practical experience with a reference database
- Automatic price calculation for diverse health insurance funds in southern germany
- Tasks: master data, price calculation, prescription position management, master agreement, DTA key management.
- Development of an account software nPROD for automatic recipe processing.
- Communication with an understaffed domain department.
- Quality enhancement with coupling- and dependency metrics

Realized with:	Operatingsystems	Windows
	Developmenttools	J2SE 5.0, Eclipse 3.3, Jbossrules, Drools Regel-Engine, RuleEngine, Castor as XML Mapper, Clover for Testcoverage, JUnit for Programtests, CheckStyle, ANTLR (ANother Tool for Language Recognition) Parser Generator, Ant, JReport
	Tools	Presentationtool/FOP, Marvin proprietary Persistence Framework and Spring Persistence Framework 2.0, GUI Workflow Framework, IntelliJ 4.5, Jboss 4, MagicDraw 14, DB2-Client 7.2.0, Citrix Emulator, DBVisualiser, Toad, Squirrel, SQL Workbench, WinCVS 2.0, TortoiseCVS, Firefox, Thunderbird, Nvu (Html-Editor), cygwin Unix Emulator, PuTTY, WinSCP

## J2EE WebShop

Branch: eCommerce

References <http://www.publicWEBshop.com>

from	12/2005 - 02/2006	with	3 months
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- Webapplication to run an online web shop.
- Generic webshop for all kinds of businesses.
- Freely configurable with many settings and preferences.
- JSF Technologie, Apache MyFaces/Tomahawk .
- Axis WebService JAX-RPC interface for B2B SOAP communication.
- EJB, JSP and Servlets.
- Struts and tiles.
- Apache Commons.
- AJAX asynch. communication on the client tier.
- Object persistance with Hibernate.
- Struts and tiles.
- Logging with Log4j.
- JavaScript and cascading stylesheets (CSS).
- Planning and maintaining of a MySql database.
- UML analysis and design.



- XML for configuration files.
- Multilingual for international purpose.
- HTML, XHTML and Flash as presentation technique.
- Tests with Jakarta JMeter and JUnit.
- Future: XSLT and XSL-FO for PDF generation.
- Future: EJB/JBoss/Spring.

Realized with: Operatingsystems Developmenttools Tools	Windows, Linux Eclipse 3.1, Enterprise Architect, XMLSpy Enterprise Edition, JBoss, Tomcat 5.5, Struts, Ant, JUnit, Macromedia Flash and Dreamweaver, div. Eclipse Plugins, MySQL 5
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## Trainings and Consulting.

Branch: All areas

References here are the biggest companies:

Co. SUN Microsystems in Munich. Contact person Mr. Hettmannsberger.  
Co. Accenture in Munich. Contact person Mrs. Steffen.  
Co. Hilf in Oberhaching/ Munich. Contact person Mr. Hilf.  
Co. AS Systeme in Stuttgart. Contact person Mr. Buehler.  
Co. Tria in Munich.

from	04/2004	-	11/2005	with	19 months
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- J2EE
- EJB, JSP and Servlets.
- Java , SWING.
- Webapplications.
- EAI integration with different interfaces.
- Message queue connections over JMS api.
- Webservices and SOAP.
- JAX-RPC.
- UML analysis and design.
- XML and XSLT.
- J2EE and GOF design pattern.
- UML for embedded systems.
- OOAD object oriented techniques.
- XML and XSLT.
- Xalan and Xerces parser event processing.
- Developing of course scripts.
- English courses.

Realized with: Operatingsystems Developmenttools Tools	Windows, UNIX Solaris Eclipse 3.0, NetBeans, JBuilder, Rational XDE and Rose 7.5, Together Control Center, Poseidon, Enterprise Architect,, XMLSpy Enterprise Edition 2006, SUN ONE, BEA, JBoss, Tomcat, Struts, Ant, JUnit, XDoclet, div. Eclipse Plugins, JAD Decompiler, Obfuscation, Xalan and Xerces Parser, Pointbase, MySQL, Cloudscape
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## Java-COM Bridge over JNI.

Branch: Insurance

References Kassenärztliche Vereinigung Bayern (KVB) in Munich.  
Contact person Mr Dietl.

from	02/2004 - 03/2004	with	2 months
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- Refactoring and Reengineering of an existing JNI Interface.
- Java Native Interface (JNI)..
- Realisation with java and C++.
- Analysis and design of the existing interfaces.
- Changing the interfaces from synchron to asynchron.
- Design of the asynchronous communication model .
- UML analysis and design.
- Use of GOF design pattern .
- J2EE integration of JBoss with MS Office.
- JNI API for distributed objects, realised in C++.
- ANSI C and C++.
- Documentation.
- Consulting and project leadership.
- Coaching of the employees.

Realized with: Operatingsystems	Windows XP
Developmenttools	JNI, COM, Visual C++ 6.0, Eclipse 3.0, JBoss,
Tools	Centro and JACOB JNI Tool

## Consulting, Trainings and Courses.

Branch: All areas

References here are the biggest companies:

Co. SUN Microsystems in Munich. Contact person Mr. Hettmannsberger.

Co. Soluzione in Munich. Contact person Mr. Roda.

Co. Hilf in Oberhaching/ Munich. Contact person Mr. Hilf.

Co. New Horizon in Hamburg. Contact person Mrs. Schmitt.

Co. Bosch in Lohr and Hildesheim.

Co. Amatech in Germering.

from	10/2001 - 01/2004	with	27 months
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- J2EE
- Workshops for the whole Java certification program.
- Java Workshop.
- Webapplications and E-Commerce architectures.
- EJB, JSP and Servlets.
- C#.
- UML analysis and design.
- XML and XSLT.
- Microsoft MCSD courses.
- ASP and .NET.
- ANSI C and C++.
- Using modern presentationtools.
- Developing of course scripts.
- English courses.

Realized with: Operatingsystems	Windows, UNIX
Developmenttools	Visual Studio 6.0, Eclipse, NetBeans, JBuilder,
Tools	Rational XDE and Rose 7.5, Together Controll

Center6, .NET, SQL Server, XMLSpy, SUN ONE,  
BEA, JBOSS

### **Internet application for an billingsystem.**

Branch: Bank, Billingsystem

References: Co. Landeszentralbank (LZB) Bayern in Munich. Contact person Mr. Stuckmann.

from 05/2000 - 09/2001 with 17 months

- Analysis and design with UML and Rational Rose.
- Refactoring, Reengineering of UML Modells, realised with Java and C++.
- Generic modelling with RUP. Generation of artifacts.
- JavaBeans and serverside Enterprise JavaBeans development.
- XML documents with Schema specification.
- JSP pages and Java Servlets development.
- Java Script programing for all browsers.
- Webapplications and Webcomponents.
- JSP Engine configuration and support.
- C++ Framework development with STL.
- JNI API for destributed objects in C++.
- Crypt with Legacy Systems from RSA and PKI.
- Webserver IPlanet and IIS configuration and administration.
- Complex SQL-Queries.
- SWIFT SIPN and InterActBrowse connection.
- SWIFT Webstation support and configuration.
- Performant PL/SQL-prozedures.
- Administration of ORACLE database.
- Team-Software development with versioning-software Merlin.

Realized with: Operatingsystems	Windows NT 4.0, IIS WebServer
Developmenttools	Visual C++ 6.0, JBuilder 3.5
JSP Engines	Apache TomCat, Allaire JRun 3.1
Databases	ORACLE 8.x, DB2
Emulations, Tools	Rational Rose 7.5, Telnet, FTP, SQL-ODBC-Viewer, SWIFT Webstation
Interfaces	JNI, XML, SWIFT-SIPN

### **Administration and support of a Stock-Trayding and Portfolio-System.**

Branch: Bank, Stock

References: Co. FMIS - Hypovereinsbank in Munich. Contact person Mrs Sterr.

from 02/99 - 03/2000 with 13 months

- Administration of stock transactions.
- Developing of ORACLE databaseprocedures.
- Coordination of projects.
- Stockorder validation: orderentrance, routing to the stock markets and protocolling in ORACLE databases.
- Developing of automatic flows to store new customers.
- Implementing and coordination of the „Ertragnisaufstellung/Jahressteuerbescheid“.
- Objectoriented interfaceprograming to BossCube and Xetra
- Interfaceprograming between UNIX and AS400.
- Objectoriented progaming of Stockedit GUI's.

- Complex SQL-Queries.
- Performante PL/SQL-prozedures.
- Support of Windows programs for Broker-Controlling.
- Support of Customerdata.
- Administration of emmisionen.
- Daily Stockbuisness.
- Year 2000 exchange.
- 32 Bit exchange.

Realized with: Operatingsystems	Windows NT 4.0, UNIX Sun Solaris
Developmenttools	Visual C++ 5.0, Centura SQLWindows 1.5
Databases	ORACLE 8.x, 7.x, SQLBase
Emulations, Tools	Hostlink, Unixlink, Telnet, FTP, SQLTalk, SQLPlus.
Interfaces	BossCube, Xetra.

### **Developing an Internet-Applet for Credit Scoring.**

Branch: Finance and Insurance

References: Co. NSE in Munich. Contact person Mr. F. Nerb.

from	05/98	-	02/99	With	10 months
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- Internet Applet and Server for a Bausparkasse.
- Client/Server application for usage within WWW.
- Customerown objectoriented classlibrary (ROI -> CORBA-subamount).
- Middleware and IDL programing
- Tests with all Internet-browsers, versions and plattformen.
- Bauspar-calculatingcore and surfaces
- Teamprograming (Sourceadmin).
- Databaseadmin, access to ISAM databases.
- Develpoing of objectoriented GUI user interfaces.
- Printing over DDE interface (Reportdesigner).
- Documentation.

Realized with: Operationsystems	Windows NT 4.0
Development tools	Java 1.1 and Visual C++ 5.0
Databases	ISAM Database
Tools, Libraries	ROI, Middelware, Customerown objectoriented Classlibrary, Internet

### **Developing a database-admin-program.**

Branch: Softwarehouse

from	01/98	-	04/98	with	4 months
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- Spezifikation of the Softwarefeatures.
- Support and admintools for Access database.
- Developing of GUI user Interfaces.
- Database administration over ODBC and RDO.
- MS DAO interface with JetEngine.
- SQL query language.
- Documentation.

Realized with: Operatingsystems	Windows NT 4.0
Developmenttools	Visual Basic 5.0
Databases	Access 7.0

Tools, Libraries

MS-JetEngine, DAO, RDO, ODBC, InstallShield, MSDN

### Installation of Network.

Branch: Advertising

References: Co. MPS in Munich. Contact person Mr. Hunsinger.

from 11/97 - 12/97 with 2 months

- Planning and installation of a Windows Network (5 PC's).
- Connection protocol NetBUI and Ethernet 10 MBit.
- Using a Networkhub.
- Installation of Internetaccounts.

Realized with: Operationsystems	Windows 95, Windows NT Server 4.0.
Technique	RJ 45 twisted pair wires.

### Programing of customer spezific softwaresolutions.

Branch: Lasertechnique

References: Co. Baasel in Starnberg. Contact person Mr. Wutz.

from 03/96 - 11/97 with 21 months

- Spezifications of the Softwarefeatures.
- Customervisits and discussions.
- Developing of GUI Interfaces.
- Reading of techniqua values from databases.
- Serial communication.
- SPS connection of mashines in processtreetes.
- Connecting of several production pc's with NT 4.0 Server.
- Connection to Windows NT pc's to an UNIX-mainframe over FTP protocol.
- Administration of Windows NT.
- Documentations.
- Installations.
- Service travels.

Realized with: Operatingsystems	Windows NT 4.0, Windows 95, Windows 3.x
Developmenttools	Visual Basic 5.0, C, Visual C++
Databases	Access 7.0, FoxPro
Tools, Libraries	MS-JetEngine, DAO, RDO, ODBC, Custom Controls ActiveX from Crescent, OnNet FTP, InstallShield, MFC, MSDN

### Developing of a Windows application to measure the pollution of Cars.

Branch: Automobil

References: Co. Bosch in Plochingen. Contact person Mr. Roth.

from 07.94 - 12.94 with 6 months

- Working in a Softwareteam (5 people).
- Using MS SourceSave.
- Extensiv use of Windows API.
- Design and development of GUI dialogs.
- Serial communication to the measure devise.
- Print of Data on the printer.
- Protocolling into the database.
- Test and support.

Realized with:	Operatingsystems	Windows 3.11
	Developmenttools	Borland C/C++
	Databases	Access 2.0
	Tools, Libraries	SourceSave, Installshield, Windows API

### **Developing an Satellite Network Management System.**

Branch: Telecommunication

References: Co. ANT Nachrichtentechnik in Backnang. Contact person Mr. Fröschle.

from	02.94	-	07.94	with	6 months
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- Analysis of the problem in cooperation with the users.
- Documentation of the features.
- Design and development of GUI-Modules.
- Using an objectoriented database
- Developing a Client/Server application.
- Implementation and documentation in english.

Realized with:	Operatingsystems	UNIX Solaris
	Developmenttools	vi Editor
	Databases	Spectrum
	Tools, Libraries	C++, OS Motif

### **Application to administrate files in a Novell-Network.**

Branch: Cartographie

from	08.92	-	01.93	with	6 months
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- Developing of menue user interfaces in "C".
- Interface-convertierung in sveral formats (HPGL).
- Developing a Network-Multiuser-Tools.

Realized with:	Operatingsystems	Windows 3.1
	Developmenttools	Microsoft C