Martin Fuhrer

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Born 1968, married, two children

Fuhrer Engineering AG

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Languages

German ●●●●●●●
English ●●●●●●○
French ●●●●○○○

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More than 20 years of experience as expert Java software engineer

Skills

- Expert Java software engineer
  Huge experience with latest Java versions
- Java backend developer
  Spring, JPA, Hibernate, Tomcat, JBoss
- Java frontend developer
  Swing, JavaFX
- Full-stack developer
  Angular, React, Node.js, MongoDB, Bootstrap
- CI/CD & team collaboration
  Git, IntelliJ IDEA, Jenkins, Docker, Scrum, SAFe

Education

- Graduation as engineer HTL
  at Biel School of Engineering
  Corresponds to today's master in information technology at university of applied sciences

Postgraduate

Sample of postgraduate educations:

- Oracle Certified Professional
  Java SE 11 Developer
- Full-Stack Web Development with Angular & React
  Angular, React, Node.js, MongoDB
- Full-Stack Cloud Developer
  Docker, Kubernetes, OpenShift, Python

Soft Skills

- Very fast adaption to new projects and new technologies
- Great experience in highly complex software projects
- Up to date with newest technologies
- Rapid, efficient, but still very precise way of working
- Reliable, resilient, quality-aware and customer oriented

Postgraduate Education – an extract of completed courses

Fundamentals

Oracle Certified Professional: Java SE 11 Developer

Cloud Computing

Getting Started with Google Kubernetes Engine

IBM Full Stack Cloud Developer Professional Certificate

- Introduction to Cloud Computing
- Introduction to Cloud Development with HTML, CSS, JavaScript
- Developing Cloud Native Applications
- Developing Cloud Apps with Node.js and React
- Introduction to Containers w/ Docker, Kubernetes & OpenShift
- Python for Data Science, AI & Development
- Python Project for AI & Application Development
- Application Development using Microservices and Serverless
- Full Stack Cloud Development Capstone Project

Front-End & Full-Stack

Full-Stack Web Development with Angular Specialization

- Front-End Web UI Frameworks and Tools: Bootstrap 4
- Front-End JavaScript Frameworks: Angular
- Server-side Development with NodeJS, Express and MongoDB

Full-Stack Web Development with React Specialization

- Front-End Web UI Frameworks and Tools: Bootstrap 4
- Front-End Web Development with React
- Server-side Development with NodeJS, Express and MongoDB

Mobile

Multiplatform Mobile App Development with Web Technologies: Ionic and Cordova

Fields of Experience – some example projects

Financial Market

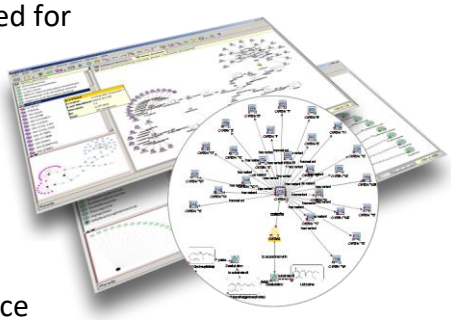
I worked on various projects in the financial market. Many of them dealing with the distribution and display of market and reference data, where data from all over the world were collected and distributed almost in real time to thousands of clients. Example projects are **SIX iD** or **SIX Flex**.

Other projects were related to the processing of financial data, including the secure execution of financial transactions in credit card terminals like the **Thales Artema** project.

Swiss Fund Data is related to fund management including the application of regulatory requirements and legal documents.

Pharmaceuticals

SafeBase is an example project in the pharmaceutical industry I worked on. It is an expert system based on a large database with statistical data of drugs and their adverse reaction. The system is used for the prediction of potential adverse reactions in the development of new drugs. It models genetic and pharmaceutical relationships and detects patterns which lead to adverse reactions in other drugs.



The system consists of a backend part with a shared database and a highly complex user interface where different graphs of genetic relationships were visualized.

Industry

IMD v4/v5 is an optical inspection system in the production of injection molding parts, e.g. PET bottles and caps. High speed images captured directly inside the production line are analyzed for a variety of errors, including deformations, color deviations, etc. Processing speeds of up to several thousand pieces per minute require very fast image analysis algorithms.

Heacon is a web application used for the automatic dimensioning of different heating systems. The system calculates the required heating power for different heating sources and compares them graphically. A bill of material and an approximate offer is calculated automatically for the chosen heating system.

Projects – a selection of projects from the past 20 years

Phone Directory Germany

Jan. 2021 – Jun. 2021

Sector	Telecommunications
Client	Deutsche Telekom AG, Bonn (DE)
Roles	Architect, software developer
Technologies	**Java, Spring, Solr, Docker**
Customer	Intersys AG

Phone Directory Switzerland

Jun. 2020 – Jan. 2021

Sector	Telecommunications
Client	Swisscom Directories AG, Bern (CH)
Roles	Architect, software developer
Technologies	**Java, Spring, Solr, Docker**
Customer	Intersys AG

Traffic Data Platform Zurich

Mar. 2020 – Jun. 2021

Sector	Cantonal administration
Client	Canton of Zurich, Zurich (CH)
Roles	Software developer, UX designer
Technologies	**Java, Spring, MQTT, Angular**
Customer	Intersys AG

Unia Digital

Dec. 2019 – Jun. 2021

Sector	Labor union
Client	UNIA, Bern (CH)
Roles	Software developer
Technologies	**Java, Spring, Cassandra, Docker, Angular**
Customer	Intersys AG

SIX Flex

Jun. 2018 – Oct. 2019

Sector	Financial market – reference data
Client	SIX Financial Information, Zürich (CH)
Roles	Software developer
Technologies	**Java, Spring, JPA, Docker, React, HTML5**
Customer	SIX Group Services AG

Telekurs iD / SIX iD

Feb. 2005 – Oct. 2019

Sector	Financial market – market data
Client	SIX Financial Information, Zürich (CH)
Roles	Architect, software developer, UX designer
Technologies	**Java, Swing**
Customer	SIX Group Services AG

Swiss Fund Data

Nov. 2010 – Dec. 2018

Sector	Financial market – fund management
Client	Swiss Fund Data AG, Zürich (CH)
Roles	Project manager, architect, developer, UX designer
Technologies	**Java, Grails, Groovy, Tomcat, MySQL, HTML5, CSS, Bootstrap, JavaScript**
Customer	ti&m AG

IMD v4 / v5

Sep. 2008 – Feb. 2009 / Dec. 2016 – Dec. 2018

Sector	Industry – plastic manufacturing
Client	IMD Ltd., Brügg (CH)
Roles	Architect, software developer
Technologies	**Java, Swing, JavaFX, Visual C++**
Customer	IMD Ltd.

Order Submission Tool

Aug. 2012 – Sep. 2018

Sector	Financial market – fund management (ETF)
Client	UBS AG, Zürich (CH)
Roles	Project manager, architect, developer, UX designer
Technologies	**Java, Grails, Groovy, Tomcat, MySQL, HTML5, CSS, Bootstrap, JavaScript**
Customer	SIX Group Services AG

Global Information System

Jul. 2014 – Feb. 2018

Sector	Financial market – credit card processing
Client	SIX Payment Services, Zürich (CH)
Roles	Architect, software developer, UX designer
Technologies	**Java, Grails, Groovy, MySQL, HTML, CSS, JavaScript**
Customer	SIX Group Services AG

TSE JDR Reporting

Feb. 2015 – Sep. 2019

Sector	Financial market – fund management (ETF)
Client	UBS AG, Zürich (CH) & Tokyo (JP)
Roles	Project manager, architect, software developer
Technologies	**Java, PDF**
Customer	SIX Group Services AG

CAT-S / Marguns

Apr. 2009 – Jan. 2015

Sector	Financial market – stock exchange trading
Client	Marguns AG, Schaffhausen (CH)
Roles	Project manager, architect, software developer
Technologies	**Java, Grails, Groovy, Tomcat, MySQL, JavaScript**
Customer	Rolotec AG

JProfiler Integration Plugin

Sep. 2004 – Dec. 2016

Sector	Software development tools
Client	ej-technologies GmbH, Munich (DE)
Roles	Project manager, architect, software developer
Technologies	**Java, IntelliJ IDEA API**
Customer	ej-technologies GmbH

Order Book Server

Nov. 2007 – Sep. 2013

Sector	Financial market – market data
Client	SIX Financial Information, Zürich (CH)
Roles	Architect, software developer
Technologies	**C++, Linux**
Customer	Rolotec AG

ELCO Heizberater / Heacon

Oct. 2005 – Dec. 2009

Sector	Industry – heating technology
Client	ELCO Heating Solutions, Hechingen (DE)
Roles	Architect, software developer, UX designer
Technologies	**Java, Java Server Faces, Java Servlets, MySQL, JavaScript**
Customer	Rolotec AG

Thales Artema

Jul. 2006 – Dec. 2006

Sector	Financial market – credit card payment terminals
Client	SIX Payment Services, Zürich (CH)
Roles	Software developer
Technologies	**C/C++, embedded development environment**
Customer	Rolotec AG

iD Server

Jul. 2002 – Oct. 2005

Sector	Financial market – market data
Client	SIX Financial Information, Zürich (CH)
Roles	Architect, software developer
Technologies	**C++, MySQL, Linux**
Customer	Rolotec AG

SafeBase

Sep. 2001 – Feb. 2002

Sector	Pharmaceuticals – drug development
Client	TheraStrat AG, Allschwil (CH)
Roles	Architect, software developer, UX designer
Technologies	**Java, Swing, Apple WebObjects**
Customer	TheraStrat AG