

# StefanKapferer

## Software Engineer



### contact

Badenerstrasse 276  
8004 Zurich  
Switzerland

+41 78 898 31 80

stefan@kapferer.ch

### web & github

stefan.kapferer.ch  
@stefankapferer  
github.com/stefan-ka

### languages

german mother tongue  
english fluency

## experience

- 05–09 2018 **Ergon Informatik AG** Zurich  
*Internship in Software Engineering*
- Implementation of business web application in the real estate industry
  - Implementation and maintenance of build- and testing platforms
  - Conducting customer training and a requirements engineering workshop
- Used technologies and frameworks: HTML, CSS, JS, Freemarker, Java, Magnolia CMS, Gradle, Maven, Ansible
- 2014–2017 **Adcubum AG** St. Gallen  
*Software Engineer Professional (part-time: 60%)*
- Design and implementation of tools to support developers (Eclipse plugins, command line tools, etc.)
  - Development and realization of concepts concerning CI/CD
  - Development, operation and maintenance of 'adcubum SYRIUS' build and it's continuous integration environment with Gradle and Jenkins
  - Development, integration and operation of software documentation tools
  - Classic software engineering tasks with Java and J2EE
  - Documentation of architecture and design
  - Supporting the migration from SVN to GIT
  - Supporting developers regarding IDE (Eclipse), Build (Gradle), SCM (Git), Continuous Integration, etc.
- 2012–2013 **Adcubum AG** St. Gallen  
*Software Engineer*
- Product development (adcubum SYRIUS):
- Development of new features and enhancements in the module 'Bestandes-/Vertragsverwaltung'
  - Creation of SQL scripts for database migration (Oracle DB)
  - Architecture optimization for business processes within the module
  - Supporting software quality assurance processes
- Used systems and technologies: Java, JEE, Eclipse, SVN, Oracle SQL, XML, Linux
- 2011–2012 **swoffice ag** Teufen  
*Software Developer Java*
- Product development (CRM solution)
  - Testing and operating solution (cloud-based solution)
  - Collaboration with customers in multiple projects
- Technologies: Java, JavaFX, Spring Framework, Apache Lucene, PostgreSQL
- 2008–2011 **clavis IT ag** Herisau  
*Software Developer*
- Development of solution concepts
  - Specification and design of solutions in direct collaboration with customers
  - Implementation of solutions based on the following technologies, frameworks and products: IBM Lotus Notes/Domino, Liferay Portal, Java/JEE (Tomcat and WebSphere Express), Web technologies (CSS, JS, HTML, XML), Webservices
  - Testing and documentation
  - Supporting customers with operating implemented solutions
  - Support and train apprentices
- 2004–2008 **clavis IT ag** Herisau  
*Apprenticeship in informatics (application development)*
- Software development using Java, Lotus Notes/Domino, and web technologies

## education

- 2018–2020 **M.Sc. in Engineering** University of Applied Sciences of Eastern Switzerland (HSR FHO)  
*Focusing on Information and Communication Technologies in the Software and Systems Master Research Unit*  
Conducted several research projects on the topics service decomposition, (micro-) service-oriented interfaces and architectures, and Domain-driven Design (DDD) aiming to strengthen personal knowledge in software architecture. The open source tool Context Mapper is a result of these projects.
- 2017–2018 **Completed 21 credits towards a M.Sc. in Computer Science** ETH Zurich  
Completed the following courses: Algorithms and Data Structures, Theoretical Computer Science, Linear Algebra
- 2013–2017 **B.Sc. in Computer Science** University of Applied Sciences of Eastern Switzerland (HSR FHO)  
Developed a concept and prototypic implementation for an architectural refactoring of the data access security based on attribute-based access control (ABAC) in a standard software for the insurance sector.
- 2009–2012 **Advanced Federal Diploma of Higher Education (HF) in Computer Science** ZbW  
Concept for a “State of the art Java development environment with Continuous Integration (CI)” and implementation in a case study project.
- 2004–2008 **Apprenticeship in informatics (application development)** clavis IT ag  
*Federal Diploma of Vocational Education and Training (EFZ)*

## papers and publications

- 2019 **Service Decomposition as a Series of Architectural Refactorings** Term project at HSR  
Architectural Refactorings (ARs) derived from Decomposition Criteria (DCs) compiled from literature and own experience. Implemented as code refactorings for the Context Mapper tool.
- 2019 **Empirical Research in Software Engineering** Seminar paper at HSR  
Scientific research strategies applied to software engineering.
- 2018 **A Domain-specific Language for Service Decomposition** Term project at HSR  
A formal approach to strategic Domain-driven Design (DDD) and service decomposition implemented in the Context Mapper open source tool.
- 2018 **Model Transformations for DSL Processing** Seminar paper at HSR  
Proof of concept for the implementation of refactorings for Domain-specific Languages (DSLs) on the basis of the Henshin tool and algebraic graph transformations.
- 2017 **'Attributbasierte Autorisierung in einer Branchenlösung für das Versicherungswesen'** Bachelor thesis at HSR  
Concept and prototypic implementation for attribute-based access control in a (micro-)service-oriented architecture.
- 2016 **'Architectural Refactoring der Data Access Security'** Semester thesis at HSR  
Extracting the data access security of a monolithic application into a separate Bounded Context (DDD) or microservice.

## talks

- 2019 **Context Mapper: DSL and Tools for Domain-Driven Service Design** Java User Group CH  
Bounded context modeling and microservice decomposition

## interests

Software Engineering, Software Architecture and Design, Service-oriented Architectures, Microservices, Domain-driven Design (DDD), Object-oriented Analysis and Design, Java, Concepts of Object-oriented Programming